Sociology

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New Impression





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PREFACE

A BASIC REQUIREMENT of a textbook in sociology is to give the student knowledge that will be of use no matter what his occupation. Of the large number of students who take a course in sociology, few will ever become professional sociologists. The boys will become merchants, farmers, industrialists. Many of the girls will be too busy rearing a family to teach sociology or to do sociological research. Both will, however, need to know how to live intelligently in the social world about them, and how to deal with the social problems that will press in on them during the forty-five or fifty years that, on the average, they will live. It will benefit them to get a balanced perspective of social life and social issues. If they know how the social order came to be what it is, they will be better prepared to direct the social changes ahead. This book is designed for the general college student, who should become a leader of opinion and action in his community. Such a purpose, however, in no way detracts from the book as an introduction to the advanced work needed by those who would specialize in sociology.

The materials in the text are drawn, of course, from the many different contributors, American and European, who have accumulated the body of knowledge that has come to be known as sociology. To the earlier contributions on group processes have been added the later researches on the wider field of culture. Sociology has been defined as what the sociologists are doing, and a book on sociology should mirror such activities. To the authors, however, social life is best explained, not by group activities alone or even by culture as a whole, but by the interaction of the four factors of heredity, geographical environment, the group, and culture. Naturally, these factors are not all of equal significance for all situations. It is therefore of the greatest importance to be able to estimate the relative value of each factor for a particular social situation.

The fact that biology, psychology, and geography are needed for an understanding of the social life of man has meant the inclusion of materials from these fields that relate to sociology. It is thus possible for sociology to be introduced early in the college curriculum and to be opened to

students not having had introductory courses in these other fields. But in colleges where students have had introductions to psychology, anthropology, and biology, the volume is large enough to allow the sections pertaining to these particular sciences to be omitted or covered rapidly.

Sociology is conceived by many writers, particularly the European, to be the one over-all social science, of which economics, political science, and the other special social sciences are subdivisions. This conception may be justified by logic but hardly by practice. One difficulty is that sociology as confined to the study of the group processes has not had enough scope and vitality in its content to become established over such rich subject matters as are found in economics and political science. However, by widening the scope of sociology to include culture and especially by stressing the interrelationships of culture, heredity, natural environment, and the group, sociology has increased its scope to considerable dimensions, and its body of knowledge now consists of "big ideas" very well buttressed by concrete data.

In the curricula of American colleges sociology has not been an over-all social science. Rather, it is listed along with the special social sciences. This arrangement has seemed practicable administratively and from the point of view of the student. However, the rise of introductory orientation courses in the social sciences has shown the need for one general social science. The broad scope of the present book suggests its possible use in these orientation courses or in a course prior to work in history, economics, political science, or anthropology, even though it falls short of establishing sociology as a general social science.

The obligations of the authors in writing this book are too numerous to be acknowledged in full, though the footnotes are a partial index of their indebtedness. However, they are especially appreciative of the reading of parts of the manuscript by Herbert Blumer, Ernest Burgess, John Dollard, Glenn Johnson, Samuel Kincheloe, Robert H. Lowie, S. McKee Rosen, Samuel Stouffer, Clark Tibbitts, Willard Waller, W. Lloyd Warner, Eleanor Rowland Wembridge, Malcolm Willey, and Arthur L. Wood.

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PART I

INTRODUCTION

I. FACTORS IN THE SOCIAL LIFE OF MAN

THIS BOOK is about a remarkable creature called man. He is extraordinary in the things he can do, as we readily see if we compare his achievements with those of other species. Man alone can speak, read, write, worship supernatural beings, build skyscrapers, and predict the position of the stars a thousand years hence. This is not to disparage the accomplishments of the ape, man's closest competitor for high honors. The apes do astounding things, too, in comparison with other animals. For example, chimpanzees have been taught to work a food-dispensing machine, dubbed a "chimpomat." They learned to get food by inserting poker chips into the proper slots, to distinguish different sizes and colors, to use each chip in the appropriate opening, and where necessary to insert two chips.[1] Clearly the ability to learn is not limited to man. Yet the apes are incapable of learning a language or any of the other complicated behavior mentioned above for man. Though the difference between man and ape in ability to learn may be only a matter of degree, the difference is substantial and of the greatest significance.

Since many of the ape's limitations are the result of his inability to talk, the question may be asked: Is the inability of the ape to speak a language due to his lack of opportunity to hear it spoken? What would be the situation if an infant ape were reared with the same opportunity as the human infant? This question is answered by an experiment conducted by Mr. and Mrs. W. N. Kellogg,[2] who reared a female chimpanzee along with their own son for nine months. At the time of adoption, "Gua," the chimpanzee, was seven and a half months old; their son, Donald, was

[1] JOHN WOLFE, "EFFECTIVENESS OF TOKEN-REWARD FOR CHIMPANZEES," COMPARATIVE PSYCHOLOGY MONOGRAPH, vol. 12, no. 5, 1936. 72 pages. Experiments carried on under the auspices of the Institute of Human Relations, Yale University.

[2] W. N. and L. A. KELLOGG, THE APE AND THE CHILD (New York: McGraw-Hill Book Company, 1933). At the age of eleven and a half months, Donald was able to utter the following words: da-da, ma-ma, Gya for Gua, din-din for dinner. Later he was able to say ba for boo, da for down, and bow-wow for dog. Donald was also very adept at imitating the various sounds made by the chimpanzee, classified by the experimenters as (1) the bark; (2) the food bark; (3) the screech or scream; and (4) the "oo-oo" cry.

ten months old. Both were treated with the same kindly care. They ate, slept, and played together. Gua, being stronger and physically more mature than Donald, was naturally more adept at motor activities, such as climbing and acrobatics. She showed greater speed of movement. More interesting, Gua very readily learned some of the so-called humanizing behavior of which the child is capable. Gua learned to eat adroitly with a spoon, to drink liquids out of a glass, to skip rope, and to open doors. Indeed she learned to do these things better than did Donald, and in general was more co-operative and obedient. But in respect to the crucial matter of speech, Gua lagged behind. The ape came to "comprehend" a large number of words and phrases, but she never learned to speak. Donald, of course, learned in the customary manner of children.

It must be assumed that this greater capacity to learn is inborn, the contribution of heredity to man. It cannot be contributed by group life alone, since the lower animals live in groups, as does man. It cannot be attributed solely to human environment, since the chimpanzee was reared in a human environment along with the human infant, yet his capacity was shown to be much less. Man alone, among the animals, has the capacity to learn speech, to solve problems in higher mathematics, to build an airplane, to become a prime minister. Indeed, we do not know the complete limits to his learning ability. He may yet learn to do many more marvelous things than he now knows.

The Need for an Environmental Stimulus to Learning

Though we know man has this wonderful gift of learning, the mere possession of it is no guarantee that it will be exercised. One may have the capacity to learn to use calculus, yet never learn to use it. So far as we know, there may be living in darkest Africa a man with the inherited musical capacities of a Beethoven. It is a fact of the greatest importance that the capacity to learn does not unfold itself, but has to be developed by a teacher, a group, or some other stimulus of environment.

This point is well illustrated by the stories of feral men, that is, people reared among animals away from human beings, or in a secluded or isolated spot without benefit of human environment. The most recent and complete report concerns the Wolf-Children of India. Two girls said to be about eight, and one and one-half years old, were found in 1920 in a wolf den by a missionary (Mr. Singh) and his party

while on a hunting trip. Amala, the infant, died not long after capture, but Kamala lived to the age of seventeen. For some time Kamala retained her wolf-like habits, eating raw meat, lapping food, panting with tongue extended, walking on all fours, resting by day and prowling about and howling at night. Transition to human behavior was gradual and was achieved largely through the efforts of the missionary's wife, who massaged her daily and showed her great kindness. After ten months Kamala took food directly from Mrs. Singh, but two years were required to get her to abandon lapping and eighteen months to get her to stand erect. Eventually she learned to fear the dark, to eat cooked food, and to wear and take pride in her clothes. She lagged in learning to talk and could speak only about forty-five words at the time of her death.[1]

The importance of social stimulation for mental and social development is exemplified also by the experience of incarcerated children, that is, those who for one reason or another are secluded by their guardians. An extreme case of this sort has been reported by Davis.[2] Anna, at the age of five, was found by officers of the humane society wedged into an old chair in a room on the second floor of a farmhouse seventeen miles from a small Pennsylvania city. Apparently she had been confined to this room for a considerable period and probably had been restrained physically as well, for she was unable to move, her body limp through prolonged inactivity. She was apathetic when found, and her face was expressionless, with no trace of a smile. Investigation showed she was an illegitimate child, born in a private nurses' home on March 6, 1932. Shortly thereafter she was taken to a children's home, then boarded for a time with a practical nurse. Sometime between the ages of six and ten months she was taken to her mother's home, where she remained until located by the humane society.

The society removed her to the county home, and kept her there nine months, during which time she became more alert, smiling and laughing heartily and taking a greater interest generally in other persons. But even at the close of this period she could barely stand with the help of

[1] These items and many others are reported in the diary which was kept by the missionary and his wife, but the report is not a scientific account. That these girls and other feral specimens are authentic, however, there is no doubt. For the diary of the Wolf Children and a comprehensive review of the literature of feral man, see J. A. L. SINGH and R. M. ZINGG, WOLF-CHILDREN AND FERAL MAN (New York: Harper and Brothers, 1942). A briefer and more popular account appears in A. GESELL, WOLF CHILD AND HUMAN CHILD (New York: Harper and Brothers, 1939).

[2] KINGSLEY DAVIS, "A CASE OF EXTREME SOCIAL ISOLATION OF A CHILD," AMERICAN JOURNAL OF SOCIOLOGY, 45:554–65, January, 1940.

some support, and in regard to speech, she appeared to make practically no progress whatever. The county home, with only one nurse to look after 325 patients, afforded Anna little desirable social stimulation, hence after the nine months' sojourn she was removed to a private home, where she received personal and affectionate attention. A month later, Anna could hold a doughnut in her hand and eat it, drink liquid from a glass, and eat with a spoon. She was much more animated and human in her responses. But still she was very backward, being unable to speak, showing little curiosity and initiative, and not playing when alone.

Those who saw and cared for her during the first few months reported that she seemed an entirely normal baby, but since she was a beautiful child, they may have misjudged her mentality. While a question remains as to her innate mental capacity, the evidence is such as to suggest that her physical and social retardation was due in no small part to her early extreme social isolation. In the case of no one of these children, reared without much cultural and group life, is it certain that mental deficiency was not present at birth. But it is not probable on the basis of chance that all would be feeble-minded.

Two Kinds of Environment

With human beings, the environment which develops capacities through the learning process is rich and varied. There are customs, institutions, books, and various types of associations. The lower animals have no such environment in nature. They are born into an environment of earth, sun, sky, water, trees, plants, other animals of different kinds, and groups of animals of the same kind. This is called the natural environment. It is the type of environment discussed by the biologists. Herbert Spencer spoke of it as the organic and inorganic environment. This environment man shares with the lower animals.

The second type of environment is that part of man's total environment into which he alone is born. It consists of buildings, tools, wearing apparel, art, science, religion, and all the ways of doing things which man learns. It is customarily referred to as man-made; but it is man-made only in an indirect sense, as will be shown in a following chapter. This part of man's environment which is not flora and fauna nor earth and air has been named by several different words. The term social heritage is frequently used, since it contrasts with natural or biological heritage. The anthropologists call this artificial environment culture, and the term

is used widely among sociologists. The term culture as used by social scientists carries a meaning quite different from the narrow connotation given to it by literary or artistic persons. Herbert Spencer used the phrase the superorganic environment in contrast to the inorganic and organic environment.[1] The significance of the term superorganic lies in its comparison with other evolutionary origins. First, according to Spencer, when the earth was created as a whirling fragment of a sun that was cooling off, there was only the inorganic. Later, life appeared, and the organic began. Lastly, with the coming of man there appeared the superorganic, which has grown in the last five or six thousand years into what is called civilization. The word *civilization* describes the late phases of culture.

The Influence of the Social Heritage

Of the two environments, the natural and the cultural, it is clearly not the natural environment, shared with all animal life, which has the most to do with man's learning. For instance, in the Mississippi Valley the natural environment is the same in the twentieth century as it was in the seventeenth century, yet children growing up in this natural environment in the two periods would learn quite differently. In the earlier period a child would learn to hunt, to fish, to trap, to gather different kinds of herbs; he would believe in mystical powers; his language would be Indian. He could not read or write and would not know how to drive an automobile, or how to play baseball. In the twentieth century the young person probably learns English and the Christian religion. His moral conduct is different. He learns, perhaps, the art of salesmanship or the operation of intricate machines. He knows nothing about how to trap and little about woodcraft, but he may learn much about music and painting. What individuals do and what they learn will vary for two different cultures, even though the natural environment is the same for both.

Conversely, a white child growing up in a city in northern Alaska in the twentieth century learns to do very much the same things as a child growing up in a city in southern Florida. The climates are different, but the children speak the same language, have the same religion, and

[1] Herbert Spencer, principles of sociology, vol. I, chap. I. For a particularly illuminating discussion of the nature of the superorganic, see A. L. Kroeber, "the superorganic," american anthropologist (N.S.), 19:163–213, April–June, 1917.

could converse about a variety of things without feeling any particular strangeness. Hence, when the social heritage is the same, persons in widely differing natural environments develop along the same lines and to more or less the same degree.

The social heritages at different places and at different times vary extremely. A young person growing up in the Puritan culture of early New England would have found indulgence in play and recreation frowned upon. A young woman in the nineteenth century in France would have had to marry whomsoever her parents chose whether she liked it or not; and if her parents did not have a dowry, she would have found it difficult to marry at all. A young woman in nineteenth-century China would have had to seclude herself and not permit her face to be seen by men outside her family; she would not have been permitted to take part in the affairs of men. A boy among the Blackfoot Indians would have to be brave to the point of recklessness and could not find a girl to marry until he had risked his life in the enemy's camp.

Sometimes a social heritage may be such as to bring hope and optimism, as was markedly the case on the Pacific coast at, say, the beginning of the twentieth century. Here was a new region with fresh opportunities for development. In other cases there may be an attitude of despair, as in the stranded populations of defunct mining towns. A culture may discipline youth strictly, as in ancient Sparta, or allow children to grow up with scarcely any discipline at all, as in New Guinea. Sometimes the attitude encouraged is one of asceticism, as in the monasteries of the Middle Ages; on the other hand, life may be kind and the naturalistic tendencies of youth may be favored, as in the South Seas. What we learn and what we become depend upon the particular culture into which we are born, and the type of life we follow is likely to be set for us by the particular part of the superorganic in which we live.[1]

The Influence of Heredity

The critical reader has no doubt already questioned, as he read these paragraphs, whether heredity does not contribute something to the habits

[1] A novel example is furnished by Fung Kwok Keung, born Joseph Rinehart of American parents living in Long Island, New York. At the age of three, his parents deserted him, and he was adopted by Chinese, taken to China and reared there for nineteen years. Recently he returned to the United States. He is Chinese in manner, speech, habit, outlook — in all ways but appearance. A picture of Fung Kwok Keung learning English in an Americanization class may be found in A. Scheinfeld, You and Heredity (New York: Frederick A. Stokes Company, 1939), p. 354.

which an individual may have. Does not the extent of learning which an individual may achieve depend upon his hereditary endowment? It is known, for instance, that certain kinds of mental defects are inherited, and it is known also that a feeble-minded child can not learn very much. Hence, it is natural to arrive at the conclusion that the result of any impact of culture on the individual is not due to the culture only, but also to the type of biological individual that feels the impact. It is undoubtedly true that heredity contributes to the interrelationship between culture and the individual.

Heredity's contribution consists of certain structures which are passed on through the chromosomes of the fertilized egg. This structure is living matter and is active. Some of this structure acts very simply, such as the "batting of an eye." Its activity is not ordinarily changed much by varying environments. The learning process does not modify the manner in which one bats one's eye, whether one lives in China, Africa, or in Europe.

The activity of running is somewhat more affected by environment, at least in ways that are of practical use. Whether one's legs are long or short, for instance, is affected by food and water as well as by heredity. The length of legs is related to running as are also the capacity of lungs, and the adrenal glands. Exercise may also affect running ability. Hopi Indians of the Arizona desert run eight or ten miles a day to their fields for planting and the same distance back. They thus become renowned runners. Though heredity is important in running, a good deal of learning is also involved.

However, whether one runs on a tennis court or after wild game is principally a matter of the social heritage. Under one social heritage, there is no tennis court, under another there is no wild game. Though one may have the inherited ability, the manner of its exercise is dependent on the culture, no matter what the variation in heredity may be. There is in our own culture plenty of good inherited capacity for running that is being wasted in sedentary pursuits, such as sitting at typewriters. There should thus be distinguished at this point the difference between variations in individual capacities and variations in the forms in which the capacity may be exercised. This distinction is of importance in trying to organize our thoughts on the contribution of the organic and of the superorganic to human behavior.

It should be noted also that the different cultural forms have a good deal to do with the quality and degree of training of special abilities.

For instance, in singing, a culture with a variety of different songs and musical patterns such as is found in, say, Munich, will do much more to one's inherited capacity for singing than will a culture more limited in this respect, as, for instance, the Navaho culture.

Indeed, the difference between two societies in the range of their culture sometimes quite overshadows the range of individual differences in capacity. For example, Eskimo children reared in American public schools solve originals in geometry and work problems in algebra. But the brightest Eskimo child reared among his own people will not learn to count as well as will a dull American child, for counting is extremely limited in Eskimo culture, while in American high schools today mathematics is carried much further than that which Aristotle knew. Hence, as regards the ability to deal with numbers, the range from the Eskimo to the American culture is much greater than the measurable range of Eskimo mental capacity. On this point it may be further noted that, as between Eskimos and New Yorkers, the difference in the physical ability to run is much less than the range of their mental achievements in mathematics. In the mental and social realm, as contrasted to the physiological, the possibilities of learning are enormously great.

The Rôle of the Group

As was observed in the discussion of feral man, if it were not for the protection and attention which the newborn babe receives from others, he would not even survive. Group life is indispensable for him. But groups do more than merely keep the child alive. They give him his culture and they also control his behavior in many important ways. Social groups fulfill the important function of transmitting the social heritage. The impact of culture on the individual is made chiefly through the medium of the group.[1] A child first begins to acquire the culture through his family group. The family is, as Goldenweiser aptly puts it, "a transfer point of civilization." [2] The neighborhood, play groups, and the school assist the family in this function of familiarizing the child with the objects, the ideas, and the values of his culture.

In a complex, heterogeneous, and rapidly changing culture such as ours, this function of the groups assumes a greater significance than it does in preliterate society, where the culture is more uniform and mod-

[1] Group behavior is a result of influences from parts of natural environment, cultural environment, and heredity. The rôle of the group, however, is of such great importance in sociology that it needs to be signaled as a separate factor.

[2] A. Goldenweiser, Early Civilization (New York: A. A. Knopf, 1922), pp. 238–39.

erate in amount. The boys among the primitive Bushmen of Australia learn essentially the same things; hence, less significance attaches to the particular family to which a given child belongs, so far as the transmission of the group heritage goes. On the other hand, in our culture today what a boy learns depends more on the particular family into which he is born and the special groups with which he later identifies himself. The son of a Pennsylvania farmer will be different from the sons of either an Arizona cowboy or a fruit vendor from New York's "Little Italy." The personality of the Italian boy depends, furthermore, on whether he affiliates with the local alley gang or the Boy Scout troop, whether he attends a parochial or a public school. In a complex culture such as ours, groups are selective instruments. They determine what aspects and versions of culture we acquire.

The importance of the group is not, however, confined to the communication of culture. Group life itself leaves significant imprints upon the individual. It shapes the personality. Whether a person is a leader or a follower, co-operative or competitive, social or unsocial, may depend on his or her experiences in groups. Some of these effects are the same for all groups, that is, they are inherent in group experience. Thus, those who belong to a group are always subject to the control of that group. Everywhere the group punishes those who do not conform. It is dangerous to be different. Loyalty to the group is universally the highest virtue, and treason the cardinal sin. A child growing up finds, whether it be in Tibet, in Melanesia, or in America, that when he does not respect the rights and opinions of others, life is made uncomfortable for him. The opinions of other persons therefore become very important to him. Moreover, his experiences with the other members of his groups conform to certain standard patterns. In countless ways he enters into competition with his associates, he co-operates with them, he has disagreements with them, and he makes adjustments to them. These dynamic patterns of human interaction, called social processes, are vital factors in the shaping of personality.

Groups of different size and pattern may have different effects on personality. All other things being equal, a boy brought up in a small family will be different from a boy reared in a large family, and both will be unlike a boy who grows up in an institution. Moreover, all these boys will behave differently in their homes from the way they behave in the schoolroom, and in neither place will they act as they do at a football game. A knowledge of the various kinds of groups and group processes is thus essential to full understanding of human experience.

Since human groups are always cultural groups, we are interested in the forms which the different group processes take in different cultures. Social control is a universal group attribute, but the form which social control takes may be democratic or dictatorial. Praise and blame are universal, but we may praise war or we may praise peace. Some cultures seem to do little toward incorporating pugnacity into their patterns; in others it becomes highly institutionalized. Hence our interest advances quickly from a statement of how individuals in a group co-operate and compete to the question of why some cultures have institutions, either economic or military, that are highly competitive, while other cultures seem chiefly to sponsor co-operative practices.

The Interdependence of the Principal Factors in Social Experience

The preceding discussion has served to introduce the four principal factors in the social life of man: natural environment, social heritage, heredity, and the group. All play important parts in human experience, and may not be ignored. Even more important, the various factors do not operate separately. They function together. It is important to stress their interrelationship. Culture, it was seen, rests ultimately on man's highly developed mental capacities. Apes do not have a social heritage of any account, and the primary reason seems to be their lack of sufficient mental power. The group, too, was shown to play a part in the development of culture; it is not conceivable that individuals living apart could develop a social heritage. In a subsequent chapter the connection between culture and geography will also be shown. Thus the interrelations of culture and biology, culture and the group, and culture and geography may be indicated. In the same way relationships exist between each one of the other three factors and all the rest. To know something of the nature of these interconnections is to acquire understanding of the social life of man; consequently, emphasis is placed in the chapters that follow on tracing the interrelationships of the four underlying factors.

The varying significance of the principal factors

Although each factor has some bearing on the others, the several factors must not be regarded as co-ordinate, or of equal significance. It is, of course, of the greatest importance to assess their influence correctly.

This is not always done. There are those who believe, for example, that the biological factor is all-important. They may hold that all great men are born, not made. They may believe, as the Nazis do, that racial purity is the only sure way to a superior culture. This position gives far too much weight to the biological factor.

The significance of any factor is not uniform for all situations. Biology may be very important in some connections and quite unimportant in others. The reader has seen that the blinking of the eye is an inherited reflex, relatively unaffected by environment. Biology is all-important in explaining reflexes, but it was shown to be less important in accounting for skill in running. And, as will be brought out in a later chapter, the changes which are now occurring in culture at such a rapid rate can be accounted for adequately without reference to biological changes at all.

In a word, then, it is of the greatest importance that the reader attempt to estimate the relative significance of these four factors for the various aspects of human experience. The chapters which follow lend assistance in this task. It is hoped that this plan of considering each one of the principal factors in relation to the others will help the reader to cultivate with reference to sociology what Sumner called "a sagacity for the significant." [1]

Sociology and Social Problems

The fact that the superorganic is now changing rapidly means that we and our children will be living under new conditions. We are interested in trying to learn whether we will be better off or worse off in the future than we were in the "good old days." The question is raised: Can we control these changes in the social heritage? The immediate purpose of sociology as a science is to discover knowledge, but as citizens we may wish to put this knowledge to work for ends we consider desirable. Hence it is important to study how groups operate, how culture changes, and how the different patterns of culture affect personality. Our welfare is tied up with what happens to the superorganic.

[1] The foregoing discussion shows sociology to be concerned with the study of the social life of man and its relations to the factors of culture, natural environment, heredity, and the group. The scope of any science may be indicated in two different ways. One is to make a statement of what the writer thinks it should be. Such a statement may describe a unified, logical, and consistent outline, but one that exists only in the abstract. The other way is to describe what is actually being done by the scientists in a given field. Their activities may not make so ideal a pattern as does the paper plan, but it is more realistic. Our discussion in this book is designed to describe what is actually being done.

The issue is dramatized by what we call modern social problems, to the study of which a course in general sociology is an introduction. Sociology may be a great aid to an understanding of social problems because of its interest in the broad basic aspects of social life. The way sociology sheds light on the whole matter of social maladjustment is suggested, for example, by the observation that nearly all our social problems result from either (*a*) difficulties of adjustment between the superorganic and inherited nature as, for instance, in many problems of sex and of crime, or (*b*) maladjustment between the different parts of culture, due to the fact that one part changes faster than another, as, for instance, in unemployment and business depressions.

Although sociology supplies a good background for the understanding of social problems generally, it cannot suggest solutions for all the specific social problems confronting our society. Modern social problems may in the main be due to the two underlying causes noted above, yet considerable detailed study is needed of the relevant facts of a particular problem before it can be fully understood. Sociology does not actually undertake such intensive study of all social problems. One reason is that they are too numerous. Also it has come about that certain social concerns are studied by special social sciences. Thus problems such as the production and distribution of wealth, the tariff and international trade, and investment are handled by economics. The special social science known as political science focuses attention upon another group of problems, such as those tied up with political parties, civil service, voting, and legislative lobbying. Education has a group of social difficulties to study and law has still another. To sociology has fallen the study of a special group of social problems, somewhat miscellaneous in character, because in the division of the field of social problems, sociology was the last to stake a claim. Some of the social problems that sociologists study pertain to the family, population, immigration, crime, the dependent and defective, and recreation. While sociology is concerned with the general study of society, it deals also, practically and intensively, with a selected number of social problems.

Plan of the Book

An inspection of the Table of Contents will show that this volume is made up of seven parts, of which this "Introduction" is the first. Certain of the other parts are assigned to the development of the interrelations

and significance of the four basic factors. Thus the rôle of the geographic factor is portrayed in Part II and that of the group in Part IV. It will be observed, moreover, that Part III is devoted to "Personality," and Part V to "Communities." These are, strictly speaking, not primary forces, but rather constitute highly important products of certain combinations of the primary forces. Thus, human personality results from the interplay of the forces of heredity, group life, and culture. The community, likewise, represents a conjuncture of geography, population, and culture. Whole sections are devoted to these topics because of their great importance in a study of the social life of man.

It has been stated that there are, so to speak, four principal actors in the great human drama of social life. Of these the leading character is culture. Culture takes the leading rôle for a number of reasons. Man alone has a significant culture; it is man's social heritage which chiefly sets him apart from all other creatures. The natural world (geography) and group life are shared by other species; hence from the standpoint of man's uniqueness, these are factors of lesser significance. Man is, to be sure, also unique in his heredity, and without it his culture would not have developed. But heredity is a stable, relatively unchanging factor, as may be seen from the fact that man's biology has not appreciably changed in the last ten thousand years. The social heritage, on the contrary, is dynamic. It has grown more in the last few hundred years than in all the long stretches of tens of thousands of years before.

Because culture is the leading actor in the human drama, culture plays a commanding part in the remaining six sections of this book. In the sections already indicated (Parts II–V), culture is considered in relation to the other factors. Part VI, however, is devoted exclusively to culture. More definitely, it is given over to a consideration of "Social Institutions," that is, to the great economic, governmental, religious, and family institutions which constitute the very heart of our social heritage. The emphasis here is on how we came to have these powerful social instruments. This discussion paves the way for the concluding section of the book, Part VII: "Social Change," where this highly important, dynamic aspect of culture is set forth, and its great meaning for human weal or woe is considered.

QUESTIONS FOR DISCUSSION

1. How would you show that the capacity to learn is an inherited factor?
2. Which is more important for man's learning, the natural or the cultural environment? Why?
3. What is the social significance of the phenomenon, feral man?
4. How is the amount of learning one does related to the hereditary factor? To the cultural factor?
5. What functions other than the transmission of the social heritage has the group?
6. What is meant by the term "factor"? Is a factor different from a cause? Are there any important factors in the social life of man other than those mentioned in this chapter?
7. The chapter states that the biological factor has been relatively constant over a long period, while the cultural factor has greatly changed. Does the group factor change?
8. How specifically do the college groups to which one belongs affect the culture one acquires?
9. According to GRAHAM WALLAS (OUR SOCIAL HERITAGE, Yale University Press, 1921, p. 16), if the earth were struck by one of Mr. H. G. Wells's comets and all knowledge and habits acquired from the past were lost, nine tenths of the inhabitants of New York and London would be dead in a month, and 99 per cent of the rest dead in six months. Discuss.

TOPICS FOR REPORTS

1. Compare the Table of Contents of this book with that of two other books in sociology. Indicate the significance of similarities and differences noted.
2. Read KELLOGG, THE APE AND THE CHILD, mentioned in this chapter. In what ways was the ape superior at the close of the experiment? In what ways the child?

3. A comparison of the cultural heritage of a child born in New Guinea with that of a child born in New York. (See MARGARET MEAD, GROWING UP IN NEW GUINEA. New York: Morrow, 1930.)
4. The history of sociology in American colleges.
5. The relation of sociology to the other social sciences.
6. The growth of the cultural concept in sociology.

SELECTED READINGS

HANKINS, FRANK H., AN INTRODUCTION TO THE STUDY OF SOCIETY, chaps. 4–9 inclusive. New York: The Macmillan Company, 1929.

In this book will be found one of the best statements of the rôle of the biological factor in social life.

KROEBER, A. L., "THE SUPERORGANIC," AMERICAN ANTHROPOLOGIST (N.S.), 19:163–213, April–June, 1917. Also printed separately as a pamphlet: *op. cit.*, Sociological Press, 1927.

This article is a classic; short enough to show the evolution of culture against the background of biological evolution, without getting lost in details.

LOWIE, ROBERT H., ARE WE CIVILIZED? New York: Harcourt, Brace and Company, 1929.

A very good popular introduction to the problems of the evolution of civilization.

LOWIE, ROBERT H., CULTURE AND ETHNOLOGY. New York: R. R. Smith, 1929.

The first four chapters in this little book give a clear picture of the rôle of four factors, culture, biology, psychology, and geography, in the development of man's social organization.

PARK, ROBERT E., and BURGESS, ERNEST W., INTRODUCTION TO THE SCIENCE OF SOCIOLOGY. Chicago: University of Chicago Press, 1921.

The classic exposition of the rôle of the group factor in human experience.

PART II

CULTURE

II. THE RÔLE OF CULTURE

ALADDIN WITH his magic lamp could not have conjured up anything more wonderful than the social heritage of modern times. The flying carpet that could transport a person through the air to Bagdad was no more remarkable than the airliner of today that takes its sleeping passengers overnight from New York to Los Angeles. A Chinese from Aladdin's country, while in America, visited a factory where he saw old pieces of wood turned into silken garments. In another place he saw a lump of coal yield more beautiful colors than are found in Nature's flowers. He heard a man talking to all America from the icy wastes of the South Pole. He visited great museums of paintings and sculpture, listened to symphony orchestras playing the music of great composers, and saw libraries containing thousands upon thousands of volumes. He beheld mansions, capitols, universities, hospitals, factories, skyscrapers, cathedrals, and great collections of them called cities. All these things he considered more wonderful than anything produced by Aladdin's lamp.

Magnificent as are these marvels of modern times, they do not constitute the whole of the social heritage of the twentieth century. The superorganic of the present really defies description. The 5000 courses offered by a modern university do not nearly cover it, nor do the fifty volumes of an encyclopedia.

THE ORIGIN AND GROWTH OF CULTURE

One of the best ways to understand culture is to learn something about how it began and how it grew. It is not known precisely how this planet on which we live originated. It may be a fragment broken off the whirling sun eons and eons ago, which later cooled into a revolving ball. Certainly there was once a time when there was no life on the planet. In the beginning all was inorganic matter. These inorganic materials underwent changes due to the influences of gases, changing temperature, pressures, and the contacts of various chemical agents.

In the course of a long span of time, life appeared. To the inorganic sphere an organic realm was added. Life assumed a multitude of forms. Cellular structure was organized into such types as insects, reptiles, birds, and mammals. Organisms were continued by cell division or through cell fertilization.

THE ORIGIN OF LEARNING

For a time the behavior of animal life was a simple chemical response to stimuli. There was in these early beginnings no learning. One animal could not learn from another, any more than one flower learns how to bloom from another plant. The pea vine climbs around the pole not by learning but in response to the movement of the sun. In somewhat the same way, by means of an inherited mechanism known as a tropism, the moth is automatically drawn to the bright light. Responses of animals which are not quite so rigid and specific and which are more complicated are seen in so-called instinctive behavior, still controlled by heredity. The wasp, for instance, builds a very complicated nest, lays its eggs, seals up the nest, and provides food for the early growth of its young, all by instinct. No imitation, learning or instruction is involved. If a wasp never sees any other wasp do these things, it will still go through the same elaborate succession of behavior patterns, if the proper temperature, moisture and materials are provided.

Likewise, the ants have complex behavior patterns based upon the division of labor, differentiation of status, and different classes of workers; but all these patterns are inherent in the structure of each ant. These patterns never change, except as the ant may change. Professor Wheeler [1] examined ants preserved in the Baltic from the lower Oligocene period fifty to seventy-five million years ago. On the basis of the evidence he concludes that "ants . . . had at that time developed all their various castes just as we see them today. The larvae and the pupae were the same. They attended plant lice, kept guest beetles in their nests and had parasitic mites attached to their legs in the same peculiar positions as our living species." Apparently the ants have not learned anything of significance in fifty million years. Indeed, one might say that the ants have little need to learn much. They have achieved their elaborate social organization by adaptation through heredity (itself a wonderful

[1] WILLIAM M. WHEELER, "SOCIAL LIFE OF INSECTS," SCIENTIFIC MONTHLY, 14:497–525, June, 1922.

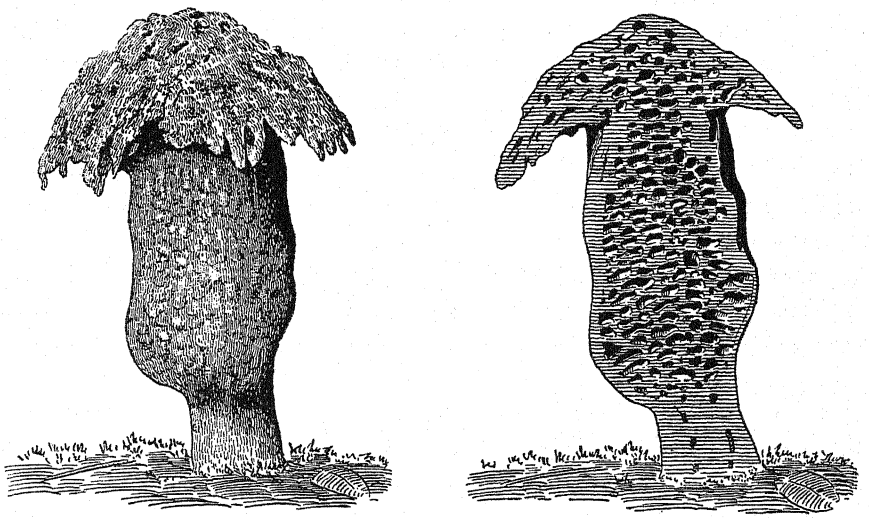


FIGURE 1. TERMITE HOUSE. MUSHROOM-SHAPED DIRT-CARTON TERMITE NEST, SJOSTEDT, MEDJE, BELGIAN CONGO

The ability to construct such an elaborate apartment dwelling is passed on from generation to generation of termites by the route of the inherited germ plasm rather than by learning. The overhanging cap protects the stem from rain. The height is 44 centimeters. The vertical section shows the connecting holes between the cells. Based on a photograph by HERBERT LANG *in* EMERSON, TERMITE NESTS — A STUDY OF THE PHYLOGENY OF BEHAVIOR, *Ecological Monographs, 8:247–84, April, 1938.*

process) and not through any individual learning. In Figure 1 we see a nest of termites, showing how remarkable can be the working out of instinctive patterns.

Learning among animals. Animals developed gradually the capacity to learn, not only in a random way through experience, but systematically from those of their own kind through imitation and communication. Certain gregarious animals seem to transmit continuously through their group life some behavior which the young learn by imitation, such as methods of the hunt and of the stampede, and possibly some slight modifications of fighting and sex behavior. It is common knowledge that mother cats teach their kittens how to catch mice and rats. If the mother cat kills rats in the presence of her kittens before they are four months old, her kittens are almost twice as likely to develop into rat-killers as they are if they witness no rat-killing until several months later. In an experiment it was found that of kittens placed in the former situation, 85 per cent before the age of four months became rat-killers; while for kittens in the latter situation the figure was only 45 per cent. Kittens raised

with rats as companions killed none of them, nor any of their kind, and only 16 per cent of other varieties.[1] Learning plays a large part in determining whether or not a kitten will be a rat-killer.

Similarly, birds instruct their young in the arts of flying and singing. Conradi[2] reports that English sparrows when isolated from others of their kind developed a new sort of song. When a second group of isolated sparrows was brought into contact with the first group, the second group acquired the novel song. Thus, the behavior of cats in rat-killing and of sparrows in singing is determined in part by learning from others and is not due entirely to compulsive hereditary factors.

The capacity to learn is a function of the physiological system, especially the nerves and their organization. Hence, considerable learning is found among the vertebrates that have a very highly developed system of nerves with a central cord. The monkeys and apes learn best of all, though elephants, horses, and dogs also have great capacity to learn. These long beginnings of learning are thus dependent upon biological evolution: the more elaborate the nervous system, the greater the learning capacity.

Relation of learning to culture. With the transmission of behavior by learning, and especially by established learning through the group, a really new order of phenomena begins. It is called the superorganic. From such simple beginnings has grown the magnificent superorganic of today which we call civilization. For instance, from such a transmission as the notes of song from one bird to another, learning has developed a transmission via radio of the sound of the words of a speaker to a hundred million listeners in every land of the globe. From the simple ability of a kitten to learn from watching the movements of its mother in catching a mouse, has grown the ability to record movements on film and to see what is happening many miles away by television. From remembering on the part of one wolf how other wolves avoided danger has grown the art of fixing in print what has happened in the past, so that we can "remember" what happened in Greece 2500 years ago by consulting our great libraries, which tell us also about the origin of the sun and the stars and what happened long before the memory of man or animals existed. We learn how to build airplanes that fly across oceans and around the globe; we learn to catch the power of falling water and light thousands of

[1] Z. Y. Kuo, "Genesis of cat's responses to rats," Journal of Comparative Psychology, 11:1–35, October, 1930.

[2] Edward Conradi, "Song and call notes of English sparrows when reared by canaries," American Journal of Psychology, 16:190–98, April, 1905.

homes; we learn to sing a music more intricate than a young bird learns; we learn to compute the distances to the stars and transform the light from distant suns into power for man's use. All these things would be impossible if there were no transmission by learning, if the only transmission were by the fertilized egg.

Thus, to the organic and the inorganic is added the superorganic. These are the three great realms of phenomena that make up the earth and what takes place on it. In general, the study of the inorganic is the province of the physical sciences such as chemistry, physics, astronomy, geology. The organic is the field for the biological sciences, zoology, botany, and psychology. The superorganic falls to the social sciences. Sociology and ethnology study the superorganic in general, while special aspects of it are treated by economics, political science, and social psychology.[1] There are, of course, interrelations of these three great planes of phenomena and the interconnections are studied also by the various natural and social sciences.

THE DEFINITION OF CULTURE

One of the earliest definitions of culture placed its origin with the coming of man, rather than with the coming of the vertebrates. The frequently quoted definition of Tylor [2] says that "Culture is that complex whole which includes knowledge, belief, art, morals, law, custom and any other capabilities acquired by man as a member of society." It should be noted, however, that culture, like science or democracy, cannot be understood very well from a definition. Redfield [3] also speaks of culture as "an organized body of conventional understandings manifest in art and artifact, which, persisting through tradition, characterizes a human group." Other students of culture, intent on making culture a distinctly human trait, object to calling any of the behavior of the lower animals culture.[4] What we have here, they say, is the projection of a subjective state, like the song of a bird or its ability to fly. In the case of man, objects are created which are distinctive from man himself. The heart of culture, they say, is to be found in the invention and use of tools, that is, in artificial, objective instruments. Culture, as Tylor defines it, is far more than material culture. But even though the material aspect of

[1] A. L. KROEBER, "THE POSSIBILITY OF A SOCIAL PSYCHOLOGY," AMERICAN JOURNAL OF SOCIOLOGY, 23:633–50, March, 1918.

[2] E. B. TYLOR, PRIMITIVE CULTURE (New York: Brentano's, 1924, seventh edition), p. 1.

[3] ROBERT REDFIELD, unpublished lectures, SOCIAL SCIENCE SERIES, University of Chicago.

[4] CLARENCE MARSH CASE, "CULTURE AS A DISTINCTIVE HUMAN TRAIT," AMERICAN JOURNAL OF SOCIOLOGY, 32:906–20, May, 1927.

culture is emphasized for humans, it is not absent from the world of the lower animals. Köhler tells how one of his apes inserted a small stick into a larger stick and used this device to secure a banana suspended outside his cage.[1] The combination of the two sticks to make a longer stick qualifies as an invention. Rudimentary as it is from the point of view of human culture, it is very advanced and clever when compared to the order of things the lower animals can do.

The essential point in regard to culture is emphasized in the definitions of both Redfield and Tylor. Tylor speaks of culture as being "... capabilities *acquired* by man as a member of society," and Redfield thinks of culture as "... persisting through *tradition.*" The essential factor in this acquisition through tradition is the ability to learn from the group, which lower animals have in varying degree.[2]

The importance of language. The speaking and understanding of a language was the big event that helped to make the culture of man so magnificent an achievement compared with that of the lower animals. A language that could, merely through delicate variations in sound, transmit an idea such as "the flood came and destroyed the houses" was an achievement far superior to the transmission of states of emotion by a small variety of cries. A highly developed language gives a capacity for conveying ideas about a tremendous variety of things. A language also perpetuates knowledge over many generations. Our own English language now contains about a million words, but even the preliterate peoples have vocabularies of many thousand words. The simplest languages rest on a grammar as adequate and complicated as our own. Some, indeed, are far more intricate. In the Eskimo language, for example, a single noun can be used in hundreds of forms with different meanings. Verb forms are even more numerous. The language is so difficult that few outsiders attempt to learn it.

Among apes, although there is no indication of anything approximating language, there is some evidence of the beginnings of symbolic experience in their gestures, emotional cries, and calls. Of these elements of communication, Learned [3] identified thirty-two related to food, drink, other animals, and persons. Since a young ape cannot learn a language, even

[1] WOLFGANG KÖHLER, THE MENTALITY OF APES (New York: Harcourt, Brace and Company, 1925), pp. 130 ff. (Translated from second revised edition.)

[2] Cf. HORNELL HART and ADELE PANTZER, "HAVE SUBHUMAN ANIMALS A CULTURE?" AMERICAN JOURNAL OF SOCIOLOGY, 30:703–09, May, 1925; also READ BAIN, "CULTURE OF CANINES," SOCIOLOGY AND SOCIAL RESEARCH, 13:545–56, July, 1929.

[3] R. M. YERKES, ALMOST HUMAN (New York and London: Century Company, 1925), pp. 137 ff.

when he is taught, while a human infant can, we infer that the capacity for language rests upon a biological development, although its exact nature is still obscure. The sharp break between the crude communication of the highest apes and the language of man does not, however, imply that language was developed suddenly.[1] Language really did not happen as an "event" as stated above. It must have been a very long time in developing, just as it must have required a long time to develop a brain size from 600 cubic centimeters (the measure of the brain case of the gorilla) to 1500 cubic centimeters (approximately the size of the skull of man).

The fact that the lower animals do not have language makes understandable the vast difference between the superorganic of the lower animals and that of man. The difference is so great that by comparison the culture of the lower animals seems slight, even negligible, so that it is customary to say that culture originated with man. For many purposes this statement is true enough. However, if one is interested in learning something of the time required to develop the superorganic and of the rôle of the biological factor in its development, then it is not accurate to say that culture began with man.

The comparison of cultures. The study of the origin and development of the superorganic should lead us to be more cautious in comparing and ranking cultures. For instance, is the culture of the Eskimo a simple, crude culture? Yes, by comparison with the twentieth-century culture of the United States; but by comparison with that of the lower animals it is tremendous, the result of a long, long period of development. The culture of the Eskimos must also be very advanced compared with that of the manlike creature who was just developing a crude language a half-million or a million years ago. The distance in years from the culture of that creature to that of the men of the last ice age is many times as great as the distance between the ice-age culture and that of the twentieth century. The latter span is only about twenty or twenty-five thousand years, whereas the span of time from the beginnings of a crude language to the last ice age is perhaps to be measured in many hundreds of thousands of years.

EARLY HUMAN CULTURES

Mousterian culture. The earliest human culture that we know much about was the Mousterian culture, possessed by a man referred to

[1] For the best knowledge we have on the origin of language, see the chapter on language in FRANZ BOAS *et al.*, GENERAL ANTHROPOLOGY (Boston: D. C. Heath and Company, 1938).

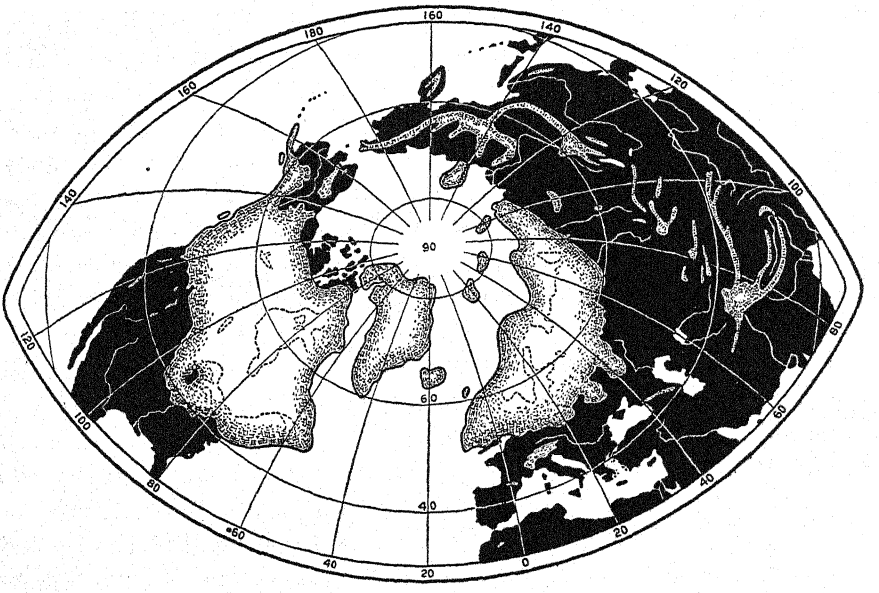


FIGURE 2. GLACIATION IN EUROPE AND AMERICA

Four times the northern parts of Europe and North America were covered by an ice cap, much as Greenland is covered today. During the last ice age Neanderthalers lived on the fringe of the glacier. The map shows the farthest reaches of the ice cap. Adapted from a map in THE CHANGING WORLD OF THE ICE AGE, *by* R. A. DALY (*New Haven: Yale University Press, 1934*).

as the Neanderthal type. The names are accidental. Some extensive archaeological finds were made of this culture in a cave at Le Moustier, France, and among the first skeletal remains of early man was a skull found in the Neanderthal Valley near Düsseldorf. These names were continued to apply to other similar finds. The Mousterian culture of Neanderthal man existed from twenty to seventy-five thousand years ago, at a time when a glacier, like the one which now covers Greenland, extended to the middle of Europe and to just south of the Great Lakes in North America. No evidence of such early culture has been found in America. Neanderthal man has, however, been found in central Asia, in Palestine and in South Africa, and many skeletal remains have been found in Europe. His wide dispersion makes him important.

Neanderthal man is not called *Homo Sapiens* and is spoken of as another species because of the important differences between his skeleton and that of modern man. He had bigger teeth, a less prominent chin, a sloping forehead, a lower cranium, very heavy brow ridges and a large

jaw. These measures suggest a close relationship to the higher apes. But it must be remembered that his brain, of around 1500 cubic centimeters, was of the general size of that of modern man. He was really not an apelike man, as the artists of the magazine section of the Sunday newspaper make him out. He is usually represented in the reconstructions in the museums and in picture books with hair unkempt, unshaven, knee flexed as though unable to stand erect, and with neck bent forward. These impressionistic tricks are more applicable to the Pithecanthropus, who had a skull of 900 cubic centimeter capacity and who lived perhaps 500,000 years earlier.

We wish we knew more about the superorganic as it was developed at the time of the Neanderthal man in the Paleolithic or Old Stone age. There are, however, no customs that survive that long, and very little material culture that will persist 25,000 years in a soil that is moist a good deal of the time. Remains of Mousterian stone culture consist chiefly of two types of artifacts: (*a*) almond-shaped flakes of flint, broken from a central nodule, and (*b*) this nodule shaped into a stone called the *coup de poing*, with a form like the two hands put together with the palms facing each other. The *coup de poing* is also found in cultures much earlier than the Mousterian. The utilization of flakes from the original stone was well developed by Mousterian man, for his stones bear evidence of having been retouched or sharpened on one side. Toward the close of the Mousterian period, flakes were developed in the direction of a knife, more fully perfected in later cultures. For industrial uses there were hand stones, choppers, planing tools, drills, borers, knives, and scrapers with various edges as knife edge, curved outer edge, saw edge, double edge, beak-shaped and many edged. There were also the hand point and a hammer stone. For war and the chase there were spear heads, hand stones, throwing stones, and the knife.[1] Some bone implements, too, have survived; among these is a bone anvil. Bone implements, unfortunately, do not survive very well, and those of wood are perishable. Fire was known before the Mousterian culture.

From his large skull we judge that Neanderthal man had a language, but what tradition he handed down or what his conceptions of cosmogony were there is no way of saying. From the way the skeletons were laid out in burial we assume Neanderthal man had a religion, also that he lived in family groups. That is, we assume that if a body was put away in a grave with offerings, this procedure was prompted by religious con-

[1] H. F. OSBORNE, MEN OF THE OLD STONE AGE, p. 254.

FIGURE 3. COMPARATIVE CHRONOLOGY OF CULTURAL CHANGES

Adapted from N. C. NELSON, GENERAL ANTHROPOLOGY, FRANZ BOAS, *Editor.*

	Climate	Approx. Dates	Northwestern Europe	West Central Europe	Egypt and Near East	Human Types
	Present	A.D. 1000	Historic times			
		A.D. 500	Viking age			
		0	Roman period of Iron age			
			Iron age introduced	Historic times		
				Iron age introduced		
		1500 B.C.	Bronze age introduced		Iron age begins	
			Traces of copper	Bronze age introduced		
			Late Neolithic	Copper age introduced	Bronze age begins	
		3500 B.C.	Middle Neolithic	Late Neolithic	History begins	
			Early Neolithic	Middle Neolithic	Use of iron begins	
		5500 B.C.	Norse industry	Early Neolithic	Use of copper begins	Modern man
	Glacial			Azilian	Tasian industry	
	Retreat	7500 B.C.		Late Magdalenian		
				Early Magdalenian	Probably beginning of Neolithic culture in valley floor silts	
Pleistocene				Solutrean industry		Cro-Magnon man
		13,500 B.C.		Late Aurignacian		
				Early Aurignacian	Sebilian industry of Nile Valley terrace silts	Grimaldi man
	Würm Glacial Period	ca. 50,000 years		Final Mousterian of the caves	Late Mousterian	
				Mousterian of the caves		
		ca. 75,000 years		Acheulian	Early Mousterian	Neanderthal man
				Chellean	Acheulian	Heidelberg man
		ca. 450,000 years		Proto-Chellean	Chellean and Early Chellean	Peking man
	Pliocene	ca. 1 million years		Pre-Chellean		Pithecanthropus
				Eolithic?	Eolithic?	

siderations, such as a belief in an afterlife, and that those who attended to the details of the burial were presumably kinsmen. However, we can have no idea as to whether he was monogamous or polygamous in marriage, or what the position of woman was in his society. There probably was a division of labor between male and female as there is in all known primitive cultures. He seems to have lived in caves and it may be that he had no other houses. As to clothing, there are no survivals, but since the climate was much like that of Greenland today, it is safe to conclude that he wore clothing. All primitive peoples today have musical instruments, songs, paintings, a system of kinship, and a village or clan organization. But whether or not these were to be found in Mousterian culture, we do not know.

Pre-Mousterian culture. Mousterian culture did not spring into being full blown. For many thousands of years preceding the Mousterian culture, there was a succession of other cultures in Europe, evidences of which are found in stone implements. These implements are, as would be expected, not so good technically as those of Mousterian culture, except for the *coup de poing.* How the non-material traits of pre-Mousterian culture differed from those of Mousterian culture itself is again not known. Among some primitive cultures found today, as in Australia, a low material culture is coupled with an elaborate kinship organization and a complicated system of religious beliefs and ceremonies. Indeed, in these respects the culture of the native Australians exceeds in elaborateness even our own.[1]

The earliest stone tools known to have been made by a tool-making animal are implements which antedate the Mousterian tools by a period measured in hundreds of thousands of years. Prior to the former, in turn, there are a great number of broken stones with a much cruder shape called eoliths. There has been much debate about these so-called dawn stones, or eoliths, as to whether they were broken by a tool-making animal or by the erosive forces of nature. It may even be that they were made in both ways. What culture was like in the time of Pithecanthropus, 500,000 to a million years ago, we do not know at all.

After Neanderthal man the social heritage grew more rapidly. By

[1] The student would increase his understanding of the stage of development of a stone age culture by reading an account of the culture of the Australian aborigines. The stone implements are only a small fraction of the total culture, as the bone in the toe is only a fragment of the whole man. See BALDWIN SPENCER and F. J. GILLIN, THE ARUNTA (London: Macmillan and Company, 1927, 2 vols.). Also W. L. WARNER, A BLACK CIVILIZATION (New York: Harper and Brothers, 1937).

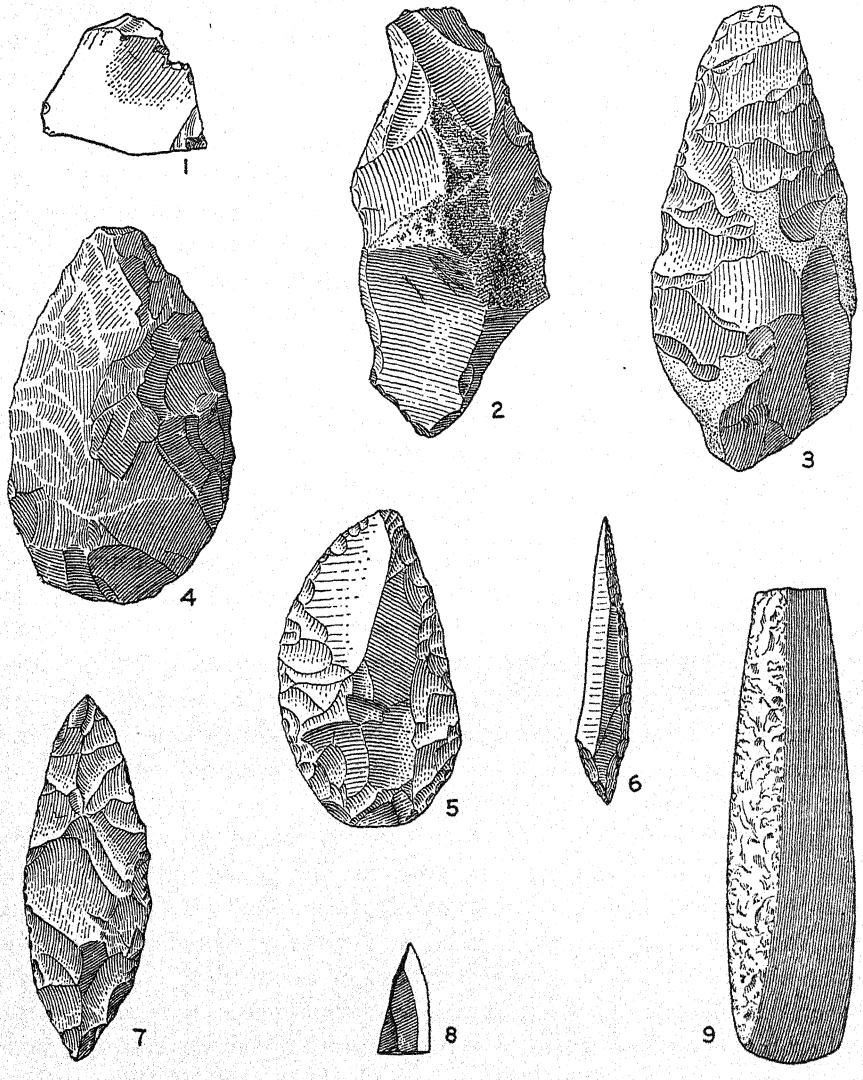


FIGURE 4. EVOLUTION OF STONE IMPLEMENTS

The stone industry evolved extremely slowly in the early stone age and proceeded with greater rapidity with the approach of Neolithic times. 1, ca. 1 million years; Eolithic scraper. 2, ca. 600,000 years; Pre-Chellean flint implement. 3, ca. 200,000 years; Chellean cleaver. 4, ca. 75,000 years; Acheulian flint implement. 5, ca. 50,000 years; Mousterian scraper. 6, 15,000 B.C.; Aurignacian blade. 7, 13,500 B.C.; Solutrean laurel-leaf flint. 8, 7000 B.C.; Tardenoisian microlith. 9, 5000 B.C.; Neolithic flint axe. All implements are reduced to one third natural size, with the exception of 8, which is two thirds natural size. (*From* G. G. MACCURDY, HUMAN ORIGINS [*D. Appleton and Company*, 1924].)

the time of Cro-Magnon man[1] with his Magdalenian culture, about ten to fifteen thousand years ago, the social heritage had grown to be something like that possessed by the native Eskimo today. If the Eskimo were blotted out, the remains that would come down to us ten thousand years hence would be much like the finds of the Magdalenian culture in Europe.

THE CULTURE OF THE ESKIMO

Since it is desirable for the student to have some idea of what the development of the superorganic was ten to fifteen thousand years ago, some aspects of the Eskimo culture will be briefly recounted here. It is not known that the culture of Cro-Magnon man of the ice ages was the same in detail or in general as that of the Eskimo. What is known is that the material cultures of both are very much alike and that their climatic and geographical environments have a close resemblance. It is quite possible that the Cro-Magnon man may have had a culture in general somewhat like that of the Eskimo. Whatever may be the probabilities, it is important to realize that a culture may be very clever and complex even though only rough stone and bone work survive as indices. Also, it is interesting to see in a very rough sort of way what our ancestors were like ten to fifteen thousand years ago. Since they lived as primitive hunters for hundreds of thousands of years, their lives may give us a better understanding of our original nature than would a biography of our grandparents. We begin with a few remarks on the material culture of the Eskimo.

Material culture. The Eskimos live in snow houses which a clever native can build between the end of a day's journey and supper time. Its shape is like half of a ball. The Greeks were never able to build a dome, though their architecture was well developed, as seen in their beautiful temples. The Romans added this architectural accomplishment of the dome. The Eskimos build a dome-shaped snow house by first placing thick blocks of snow about eighteen inches high in a circle on the ground. They then slice a little off the top of one slab of snow, sloping the slice downward. In slicing the adjoining block they begin where the slice in the previous block ended and cut off still more, sloping the cut downward. By the time they have sliced down each slab all the way round the circle, the last remaining block is sliced to the ground on the end that adjoins the first block. There is thus a spiral on which the

[1] There is fairly unanimous agreement that Cro-Magnon man is the first form directly ancestral to us.

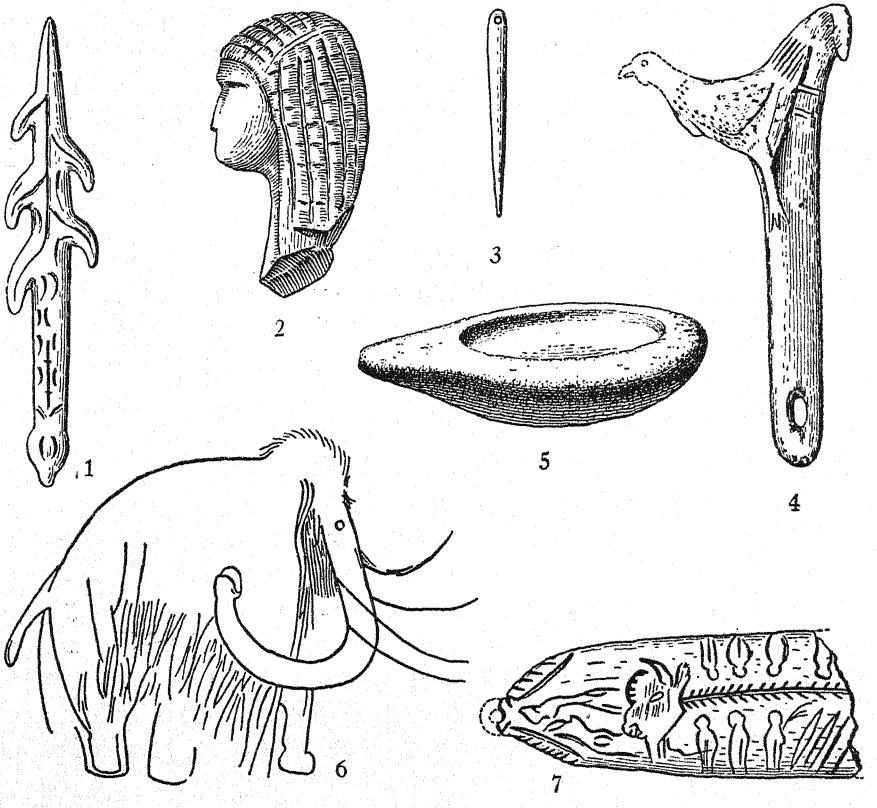


FIGURE 5. MAGDALENIAN IMPLEMENTS AND ART

This is the period of Cro-Magnon man.

1. Harpoon. 2. Young female head in ivory (from the Grotte du Pape at Brassempouy). 3. Bone needle. 4. Magdalenian dart-thrower of reindeer horn (from Mas d'Azil, Ariège). 5. Lamp of gritstone (from the cavern of La Mouthe, Dordogne, France). 6. Wall engraving of a mammoth in the caverns of Les Combarelles, Dordogne, France. 7. Bone pendant which had served as a hunter's tally (from the cave of Raymonden at Chancelade, Dordogne, France).

Based on drawings in HUMAN ORIGINS, *by* GEORGE G. MACCURDY (*D. Appleton and Company, 1924*).

second tier of slabs can be placed, without having to hold them in place by hand. The spiral winds upward until the last block of the dome is placed, enclosing the roof completely. From the interior the Eskimo then cuts out an entrance way.

The snow house is so warm with only a lamp to heat it that the Eskimos strip to the waist when inside. Yet the snow does not melt. How does it happen that the house does not melt? The answer is the same as

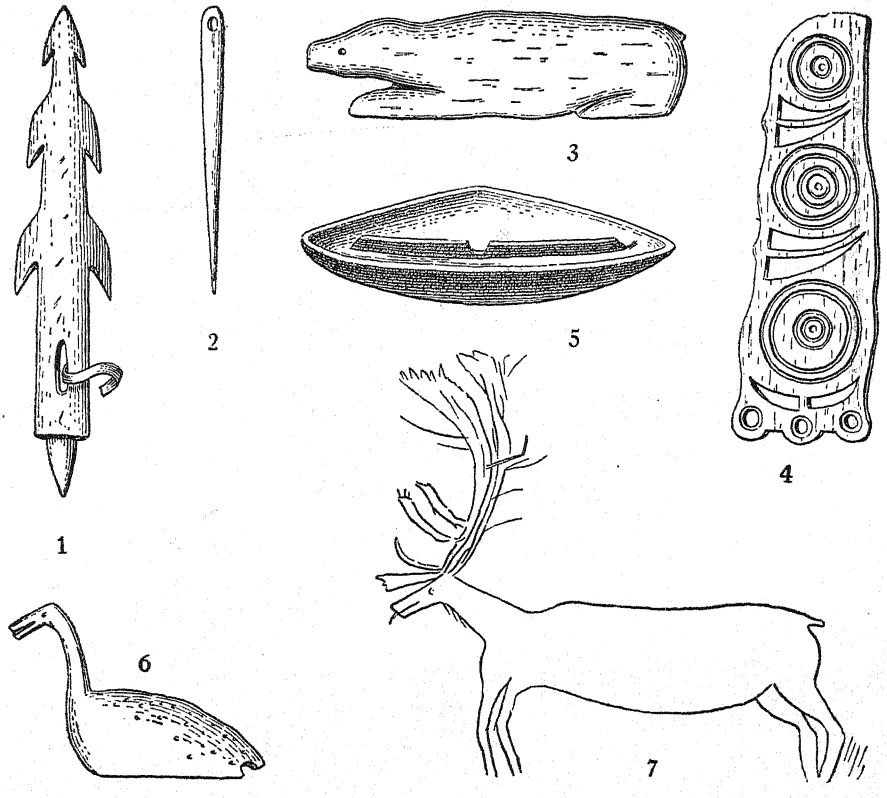


FIGURE 6. ESKIMO ARTIFACTS

Note close resemblance to those of Magdalenian culture. The Eskimo today lives much as our European ancestors lived tens of thousands of years ago when northern Europe was an ice cap.

1. Toggle heads for harpoons (Point Barrow). 2. Needle for stringing fish. 3. Bear effigy. 4. Ornament for wooden hat (Alaska). 5. Lamp (Labrador). 6. Bird effigy (St. Lawrence Island). 7. Wall engraving.

Drawn from specimens in the Peabody Museum, Harvard University.

the engineer's who maintains a freezing temperature in an icebox when the temperature outside may be 100 degrees. The Eskimos achieve insulation by suspending skins from the snow roof, with a wide layer of air between the warm skins and the cold snow blocks. Ice may be used as a window. Transparent windows of glass did not come into use in Europe until the Middle Ages. Whether the Cro-Magnon men built snow houses is not known, since no evidence could be left of such an achievement.

For transportation the Eskimo uses a sled on land when the snow is

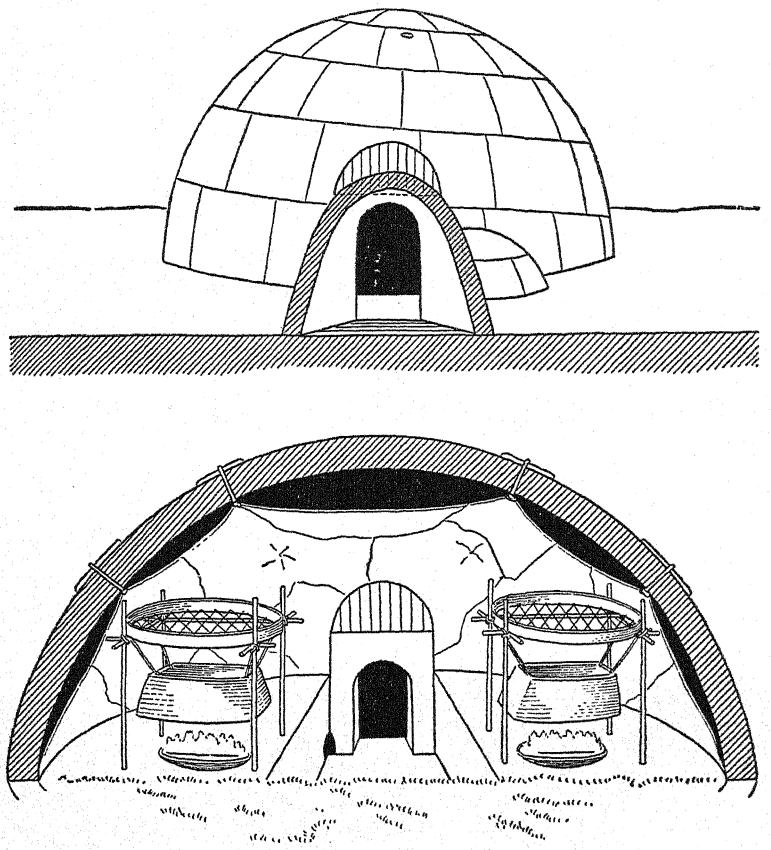


FIGURE 7. ESKIMO SNOW HOUSE

The Eskimo achieved the dome, which was not produced by the Greeks, by cutting the snow blocks in a spiral form. The principle of insulation shown in the lower picture enables the Eskimo to keep warm inside without melting the snow on the exterior.

Taken from SIXTH ANNUAL REPORT OF THE BUREAU OF ETHNOLOGY (*Washington: Government Printing Office, 1884–85*), *p. 543*.

hard. If no driftwood is to be had, and bone is not available, he can make a sled out of frozen salmon and walrus hide. The salmon are placed end to end, rolled up in skins and left out to freeze. The whole roll is later lashed together into the sled. To reduce the friction, a little water is laid on which quickly freezes producing a slick, flat, smooth runner, which also protects the leather from wear. With trained wolves to pull the sled, the Eskimo can travel much faster than a horse and buggy can on bad roads.

For water transportation the Eskimo has a skin boat that is as beautiful and graceful as a birch bark canoe, and more efficient. The long, light boat is completely covered with waterproof skin, except for the opening which is about as big as a small barrel hoop. When an Eskimo is seated in this boat with his skin coat strapped around the hoop-like opening, the boat can be turned over by a wave or a walrus and then righted without dislodging the occupant and without getting any water inside.

These effective methods of travel are very useful, for the Eskimos are few and widely scattered. All the Eskimos in the world could, as Edward Weyer phrases it, be seated in the Yale Bowl without filling half the seats. Yet the Eskimos are scattered over a territory 800 miles wider than that from New York to San Francisco and north and south over a distance greater than that from Canada to Mexico. The Eskimo is a great traveler. He must travel a good deal to get the desired food. But he also likes to visit, even if it requires long trips.

The Eskimo has, it is agreed, the most perfect shoe in the world. It is so good that all the arches in an adult's foot, including the arches in each of his toes, are unbroken. If the shoe did not fit well, the place where the leather pressed on his foot and cut off the circulation of the blood would freeze. He has learned also that if he does not change the straw or moss in his shoe after a day's use, it will not insulate as well and his foot will freeze.

The Eskimo shows his ingenuity also in his hunting. His enemy, the wolf, is difficult to hunt. One way to hunt him is to bend a piece of whalebone, sharp at both ends, and enclose it in a morsel of fat, which is then frozen. The wolf swallows the food at a gulp. It melts in his stomach, the whalebone punctures his stomach, causing death. Or the Eskimo may place blood on the point of a sharp knife, which attracts the hungry wolf. Licking the knife the wolf cuts his tongue. As the blood on the knife increases, he licks it more, so that eventually he drops from weakness.

The Eskimo has constructed a clever device for following the course of a wounded sea animal in flight. Tied to the harpoon, which remains in the animal, are several inflated bladders which tend to float like a buoy on the surface of the water. To slow up the flight of the wounded game is an object like a large tambourine, attached to the bladder float, and this offers resistance to movement through the water, as a parachute slows up the speed of a falling object in the air. This resistance saps the strength of the walrus.

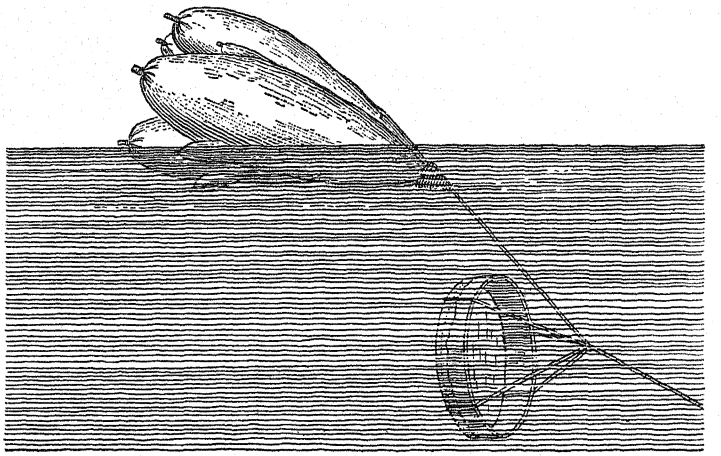


FIGURE 8. A DRAG, WITH FLOATS
An Eskimo device for following and slowing up a wounded walrus.

The above inventions are those of ice-age men who had only bone and stone to work with. In modern America, with all our technological equipment and scientific knowledge, a number of years were required to invent the drinking fountain, which called for only enough ingenuity to turn a faucet through an angle of 180 degrees. The Eskimos display much mental ability in the field in which they operate. If they were to disappear and 20,000 years from now an anthropologist were to uncover the ruins that would be left, it would be difficult for him to imagine from the few bone and stone remains what clever inventors, builders, travelers and hunters these people were.

Non-material culture. The Eskimos also have a religion. We do not know, of course, what the religion of the Cro-Magnon man was. The chief deity of the Eskimo is a goddess named Sedna, who lives at the bottom of the sea with her father. Sedna is in control of the sea mammals, the whale, the walrus, and the seal, which are the most important food supply. Sedna controls the weather, and when she is angry for one reason or another she shows her anger by sending storms and cutting off the food supply.

The religious leaders or priests are known as *angakut.* They are very powerful, since they deal with Sedna over such important matters as storms and food supply. They are vested with other powers by supernatural creatures known as *inua.* Thus the *angakut* are enabled to per-

form miracles, such as healing the sick or injured, or driving away a famine. The simple Eskimo hunters thus have a cosmology and religious leaders. The formation of such religious ideas represents a high degree of intellectualization of concepts. There are also houses for religious services. These are great houses of snow dedicated to some special supernatural creature who is thought to be unusually helpful to human beings. These great snow houses are for singing and dancing, which are the chief forms of worship. The dancing in the long winter night proceeds according to ritual, leading up to the climax of dancing frenzy.

There are various religious rules. The seal are supposed to have originated from Sedna's fingers, hence atonement must be made for every animal killed. All work must stop while the seal is cut open, and for every walrus killed the rest period is three days. There are special regulations for women during certain periods. They are not permitted to eat raw meat, must cook in certain pots, and cannot take part in the festivals. In case of violation of these taboos, a black object which is visible to the animals of the hunt is supposed to attach itself to the culprit. Seeing this they run away, and thus the food supply is threatened. To prevent famine, a public confession is necessary, whereupon the guilt is expiated. Thus there are regulations, laws, and a system of punishment at this stage of the superorganic.

There are also codes of moral conduct among the Eskimos, though they are quite different from our own. The hospitality to a lone traveler always includes food and shelter, and in some cases may include a female sleeping partner. Such a custom is followed only with the consent of the parties concerned, namely both the husband and the wife. If such hospitality is extended, its rejection is considered an insult to the woman and the host. The man is head of the house and sexual irregularities without his consent are severely punished. Thus there are rules of behavior in sex matters, and in no sense is there promiscuity. An elderly Eskimo, unable to hunt or be of use, often goes away to die alone, or voluntarily asks to be left behind when the family moves on, particularly if the food be short and one more person to feed is likely to be a danger to the group. Or, failing voluntary action, the group may decide to leave the old one behind to die alone.

The Eskimos seldom fight. It is not known, of course, whether Cro-Magnon man was much of a fighter or not, but certainly the Eskimos, an ice-age people, are most peace-loving. There is, of course, a good deal of nonsense in our folklore about the savagery of wild men, and the

imagination of the comic strip artist who deals with Tarzan is not very realistic. The Eskimos have blood feuds between families and local groups, as do nearly all primitive peoples. The family makes a reprisal for an injury to one of its members. In lieu of fighting, the Eskimos settle some disputes by a combat of ridicule and repartee. The affair is settled in the presence of the group by a satirical contest conducted in song, the lines of the song being improvised as the duel proceeds. The audience recognizes the merits of the points made, and one of the contestants is soon recognized as clearly the victor and the other the vanquished in this contest of wit and argument.

The Eskimo people have good health. Disease was rare, if not unknown, before the coming of the white man, despite the fact that the Eskimos are not very clean in their habits. The environment with which they must cope is difficult enough to discourage anyone, yet the Eskimos are acknowledged by all observers to be a very happy people, with little irritability, grouchiness, or nervousness.

Eskimo social organization is based upon the family and village community. The males of the family are the producers of food and the builders of houses, while the women prepare the food and make the clothing. Sharing of food or goods among the families of the group is common. Since the villages are made up of very few families, there is a common bond between the different families much as between the different members of the family. Hunting parties are made up of men from different families. There is very little organized government. Power is vested in two types of leaders, the *angakut* and the best hunters. Leadership is not hereditary or definitely organized. It simply gravitates to the capable. A big man among the Eskimos is a J. P. Morgan, Babe Ruth, and Henry Ford combined into one person. Naturally he has great prestige, for such a combination of ability is very much appreciated.

Cro-Magnon men were wonderful artists, their work being quite comparable to that of modern artists. The Eskimo art is less notable, though they do excellent work, as seen most strikingly in their dress and in their carved ivory. The patterns and designs of dress for males are in general more artistic than our own. The furs of modern females are no more beautiful in color and design than those of Eskimo women. The latter are skilled in carving figurines and can make a beautiful, delicate necklace out of a single piece of ivory without a break in a single link.

This thumbnail sketch presents a few items in the culture of the Eskimo.

It is much more elaborate and complex than here indicated. Volumes have been written on their religion alone,[1] and might be written on their art or any other phase of their culture. But enough has been presented to show how bare an indication the chipped stones and worked bone are of the other features of culture. By the time of Cro-Magnon man in the last ice age, not only was there a man as highly evolved biologically as modern man, but it is probable that the superorganic had all the essentials of modern culture, that is, tools, houses, clothing, religion, law, ethics, philosophy, art, language, family, economic and social organization. By the time of Cro-Magnon man, culture must have come a long way from what it was 500,000 years before for Pithecanthropus with his half-way skull. But that long span is a blank in our knowledge of what stages the superorganic had attained, though there are being recovered fragments of skeletons that yield a picture of the changes in the skull.

GROWTH OF THE SUPERORGANIC SINCE THE ICE AGES

As the ice cap receded from central and northern Europe to its present position on the tip of the world, the skull of man grew no bigger; indeed, it may have become smaller. But the superorganic continued to grow more and more rapidly. The stone tool-making culture became more skilled and refined. In that age Man found his way to the Americas, probably accompanied by the domesticated dog. He also later learned to domesticate plants by setting out shoots and by planting seed. More abundant food in turn made possible communities of larger size with more types and variation of social organization. The stability of life in larger communities encouraged the making of pottery.

To these arts, which are found widely distributed in various lands, were added several important contributions just before the beginning of history in the old world. Big power animals like cattle and horses were tamed, and the wheel was invented. It was not, however, until after the Roman Empire that good harnesses were devised, enabling man to get the most power out of the horses, and the wheel never came into considerable use in transportation until good roads were achieved, first by the Romans and later in the Middle Ages in western Europe. The domestication of grains like millet and barley brought a rather durable food supply. Such grains could be stored for a fairly long time. The boat must have been present rather early, possibly appearing in the culture of the

[1] KNUD RASMUSSEN, THE PEOPLE OF THE POLAR NORTH (London: K. Paul, Trench, Trübner and Company, 1908).

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ice ages; but it was improved, and by the dawn of history sails were known.

Copper and gold were picked up from among the rocks, and meant a good deal in the making of art objects and containers. The clever discovery of alloying copper and tin into hard bronze brought a tool and weapon that was to displace stone. Iron used in the culture of Africa and Asia soon made a better tool, but one less amenable to art expression than bronze. The superorganic in the Americas never incorporated the metals, except for ornamental copper and gold. Nor did the Americas have the wheel, horse, or cattle, though the llama was tamed and used as a pack animal. In America, however, counting was well developed and the zero was in use at a time when the Romans were struggling along without it. In both Egypt and Central America a calendar was added.

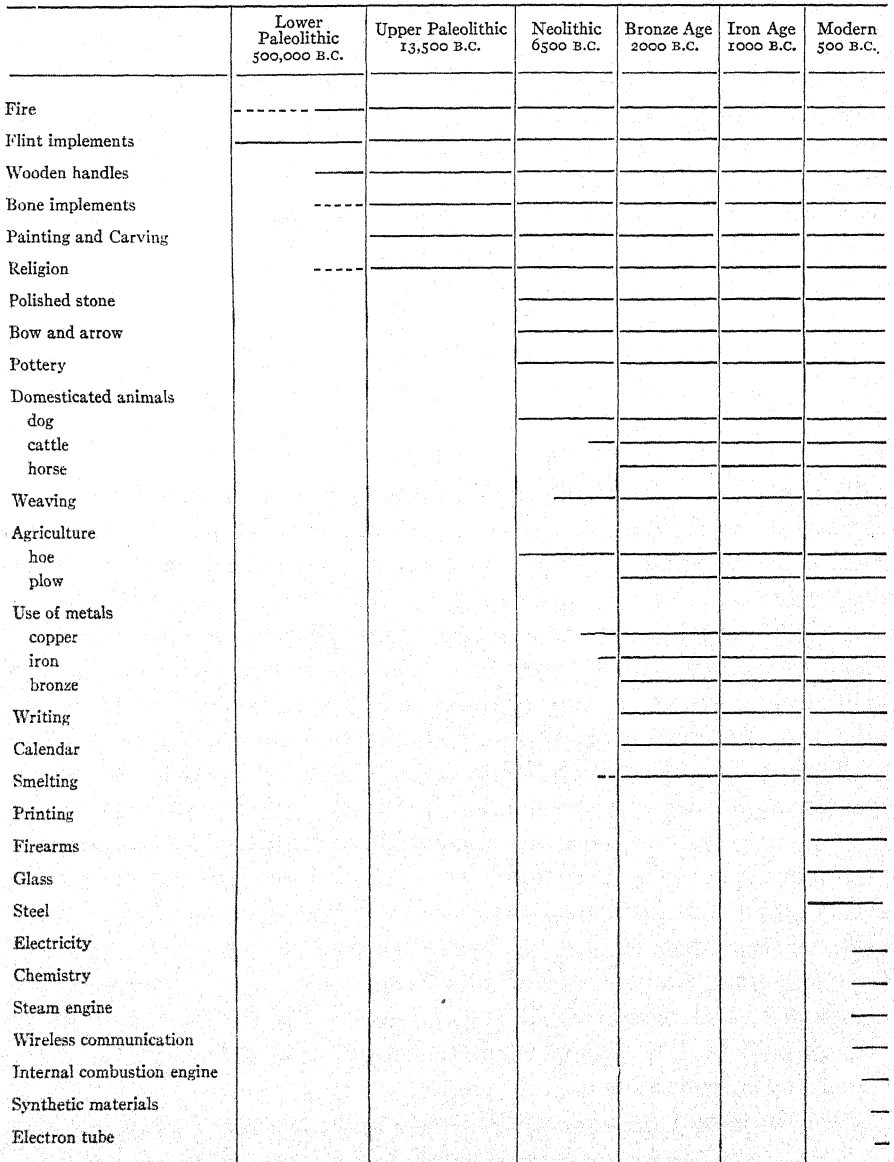
The origin of civilization. Culture was growing more rapidly at the dawn of history than it had been during the ice ages, if we may judge from the material remains. The people along the Euphrates and the Nile at this time found themselves inheriting a much more highly developed superorganic than did the men of the old stone age. Writing became perfected after a long period of improvement at the beginning of history. In America it had reached the pictograph form among the Mayans by the time of the coming of the whites. Writing was of tremendous importance for the growth of the superorganic. Since culture originated with the transmission of ways of behavior by learning from the group, it is readily seen that writing, which facilitates transmission, is in the same general order of importance as speech itself.

History begins with writing, as does civilization. Civilization may be defined as the latter phase of the superorganic. Actually the word civilization is derived from the type of social organization. Preceding civilization, society in Europe and western Asia was organized on a kinship basis, with different clans recognizing varieties of kinship. With the development of villages and larger communities, kinship was greatly reduced as a factor of social organization and relegated largely to the family, as is the case with us today. Groups were organized on a civil basis as cities are at the present time. Hence civilization. In the Mediterranean region, civil societies became prominent about the time writing was perfected and the highly developed material culture that accompanied it. Thus civilization is generally considered to have begun at the time of writing and the advent of the metals; but as the elab-

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FIGURE 9. CHRONOLOGY OF IMPORTANT INVENTIONS

(The dates are approximate. A difficulty in fixing the date of origin of important inventions lies in the fact that they generally do not arise abruptly but rather have a long period of evolution. For instance, writing was perhaps 2000 to 3000 years in developing.)



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orateness and complexity of the preliterate cultures have come to be appreciated, it is realized that the distinction between civilization and primitive society is not so clearcut as was once thought.[1]

During the period of written history, there has been a considerable development of metals, particularly the invention of the steel-making process in the nineteenth century and the use of alloys in the twentieth. Glass was also perfected. Extremely important was the addition of power machines. Primitive cultures had the draft animal, the lever, and the sail. Early in civilization appeared the windmill. But most important was the steam engine. Later came the internal combustion engine and the electric motor. These engines were attached to moving as well as stationary machines. Manufacture by chemical processes is another kind of production. By industrial chemistry one substance is changed into another, generally without any great aid from power. Explosives, printing, the transmission of sound by wire and wireless, and transportation by air are other additions to the superorganic during the historical period.

THE PERSPECTIVE OF CULTURAL EVOLUTION

The growth of the superorganic from simple beginnings far back in the animal world has been traced. A great turning point was the acquisition of language. When man became what he is now sometime during the later ice ages, another great step forward was achieved. By that time, though, culture had grown greatly in the things it could do. From the ice ages on, its growth has been very rapid indeed. Such a brilliant and marvelous history makes one wonder what the future may hold. The unfolding of the superorganic goes on. It has not stopped with our twentieth-century civilization. Cro-Magnon man with all his great mental ability, as he stood at the mouth of his cave looking out across the expanse of snow and ice, could not see what the 20,000 years ahead would show in the development of civilization. He could not have even imagined a fraction of the great inventions that have been mentioned in the preceding pages. Nor could Aristotle with all his learning have foreseen 2500 years ahead the chemistry, the engineering, the communication and transportation inventions of today. What the superorganic will be like 20,000 years hence, or even 2000 years hence, is staggering to contemplate.

To help obtain an idea of the proportions of time required for the

[1] ROBERT LOWIE, ARE WE CIVILIZED? (New York: Harcourt, Brace and Company, 1929).

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evolution of culture, geologic time can be scaled to the units of a great clock. Suppose the culture of the Pithecanthropus of 500,000 years ago be placed at midnight, the time of the beginning of a new day, and our present culture at midday. Each hour on the clock then represents about 42,000 years. The Mousterian culture of Neanderthal man flourished about eleven o'clock in the morning, while the culture of Cro-

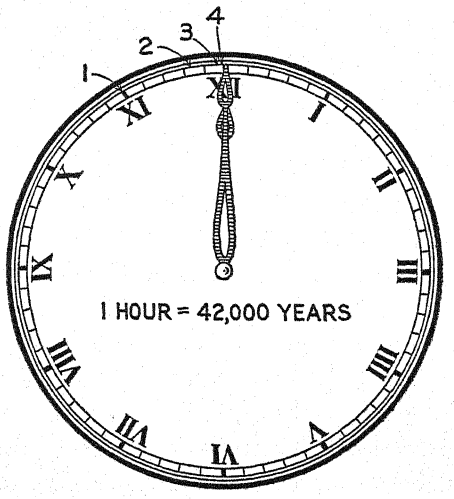


FIGURE 10. CLOCK OF ANTIQUITY

From midnight and Pithecanthropus to midday and modern man.

1. *Eleven o'clock: Mousterian culture.*
2. *Twenty minutes to twelve: Cro-Magnon man.*
3. *Three minutes to twelve: The Golden Age of Greece.*
4. *Thirty seconds to twelve: Early beginnings of modern science.*

Magnon man flowered about twenty minutes to twelve. There was a stretch of about eleven and a half hours of cultural growth from Pithecanthropus to Cro-Magnon. Several days must have passed since the superorganic was at the stage now possessed by the great apes, and many weeks since its very early beginnings. The Greeks of the Golden Age of Pericles are only about three minutes away. A few seconds after twelve, noon, we may be able to see by television what is happening at any spot on the planet. Our work may be done for us by robots in automatic factories. By five minutes after twelve the magnificence of the superorganic may be such that we do not even dream of now, and the mind of man is utterly unable to grasp what culture may be by the middle of the afternoon.

The Analysis of Culture

The question of how this development has come to pass, that is, the question of the nature of the factors involved in cultural growth, is an exceedingly significant one. It will be taken up and treated fully in the last section of the book on "Social Change." There we shall consider the processes by which culture develops and the principles governing the rate of growth. In this chapter the purpose has been rather to present a brief sketch of the growth itself, in order to show how, from very meager beginnings, culture has grown to its present gigantic proportions.

MATERIAL AND NON-MATERIAL CULTURE

The accumulative nature of cultural growth is more noticeable in regard to material culture (such as tools and buildings) than it is for culture that is not material (for instance, religion or manners). The early definitions did not include material objects as part of culture, for culture was regarded as learned ways of behaving and not as a collection of objects. There was no place for material culture under this conception, for the learned ways of behaving in making material objects and in using them are psychological, non-material phenomena. Nevertheless the phrase, material culture, has come into practical use to designate the objects that are a part of the social heritage. The social heritage is a part of the environment of man, of which the other part is nature; hence the material objects of the social heritage become a new addition to environment. Houses, for instance, protect the inhabitants from rain, snow and wind. In them, the climate of the springtime may be maintained the year round, both in the tropics and in the far north. The material culture thus becomes a new environment to which the other parts of the superorganic, such as recreation, family life, and education, adjust. Much of the non-material culture consists of adaptations to tools and technologies.

Social organization. While for certain purposes of analysis it is desirable to make a distinction between the material and non-material culture, it is also important to note that they are interrelated parts of a larger cultural unit, social institutions. Houses, furniture, and food, for instance, are a part of the material culture of the family institution, the non-material aspect of which is represented by such things as marriage, monogamy, and patriarchal rule. When material and non-material culture are elaborated around fundamental human functions, we have

social institutions. Men live by such functions as sex, work, worship, and play. On these are built the family, economic, religious, and recreational institutions. In the United States few people live outside family groups. The country is dotted with primary and secondary schools and institutions of higher learning. Every week more than 100 million persons go to the movies. The churches have a property valuation in excess of four billion dollars. The government of our democracy is supported by the votes of many millions of citizens. Social institutions, which are the very heart of a culture, are discussed more fully in a later section.[1]

The universal culture pattern. An interesting question about these different parts of culture is whether there is any primitive people in existence today whose culture does not possess all these parts. There are probably some 500 different preliterate peoples today. Are they all capable of a culture of such a variety of parts? The subject has been investigated by Clark Wissler,[2] who lists the following as parts of culture found in all preliterate societies: (1) speech; (2) material traits, objects and the skills pertaining to them; (3) art; (4) mythology and scientific knowledge; (5) religious practices; (6) the family and the social system; (7) property; (8) government; and (9) war. These nine divisions represent an irreducible minimum of culture and comprise what Wissler calls the "universal pattern" of culture. But this minimum can be ascribed to all existing peoples only if the interpretation of some of the categories is quite elastic. As will be shown later in the section on social institutions, for example, some preliterate societies are lacking in formal government and organized warfare, only the beginnings of these institutions being discernible.

THE INTERRELATIONS OF THE DIFFERENT PARTS OF CULTURE

The different parts of culture are all related to one another and do not function separately. Thus, today the family is correlated with the educational system, and in preliterate groups religion and medicine are tied closely together. The parts of culture are thus interlocked one with another with varying degrees of closeness. Pictorial art is not so closely connected with the economic institutions as with religion. On the other hand, government and industry are vitally joined. Ethics and religion are in a close union today, as were the family and production in earlier

[1] PART VI: "SOCIAL INSTITUTIONS."

[2] CLARK WISSLER, MAN AND CULTURE, p. 74.

societies. The superorganic of any one area or people is thus like a machine or an organism with all its parts interlinked.

The culture complex. Each of the sub-parts of culture is in turn made up also of interlinkages. When these interconnections center around some one dominant cultural trait, they are called a complex. Thus, there is a horse complex. Around it cluster practices relating to riding, hauling, fighting, farming, feeding, vehicle producing, harness making, and so on. When the American Indians adopted the horse from the Spaniards, they took over the horse complex. The correlations of the culture traits are very close in a culture complex, more so than the correlations between the major parts of a culture.

The culture pattern. The arrangement, or *gestalt*, which the interrelations between the different parts of culture make is called a culture pattern.[1] The configuration is different for different cultures. The pattern of culture is quite different in China from what it is in the United States. For instance, the family institution is much larger in China, with twenty or more individuals often functioning together as a family unit. The Chinese family is also more closely correlated with a number of other social institutions, such as religion and economic organization. Ancestor worship shows, for instance, that the family is closely bound up with religious belief and practice, as does also the fact that the head of the family is a kind of high priest. The Chinese family, unlike ours today, is the principal unit of economic production. China has not yet taken over our industrial system, as has Japan, but still has an agricultural economy. Moreover, the economic complex of Chinese farming, with its intensive hand cultivation, is greatly different from the type of American farming with tractors and combines. So we say the Chinese culture pattern is different from our own.

The ethos. Attempts are often made by ethnologists and travelers to identify the distinctive features of a particular culture. A shortcoming of many such efforts is the tendency to describe in too simple terms a phenomenon so heterogeneous and complicated as a culture pattern. For instance we are told that German culture today is totalitarian, that of France is democratic, and that of India is religious, while Sparta was militaristic, Athens commercial, and Renaissance Italy artistic. Sapir[2] notes in the French culture its emotional shallowness, its exaggeration of

[1] Cf. RUTH BENEDICT, PATTERNS OF CULTURE (Boston: Houghton Mifflin Company, 1935).

[2] EDWARD SAPIR, "CULTURE, GENUINE AND SPURIOUS," AMERICAN JOURNAL OF SOCIOLOGY, 29:401–29, January, 1924.

manner at the cost of content, as evidenced by the formalism of French classical drama, the prevalence of epigrams, and the lack of the ecstatic note in religion. But such attempts to single out any one dominating characteristic for a comprehensive culture is merely impressionistic emphasis. The description gains in accuracy, perhaps, if all or many of the distinctive complexes that give individuality to a culture are indicated, much as a personality might be described. Thus Japan's culture features ancestor worship, the special divinity of the emperor, militarism, respect for learning, politeness and courtesy. American culture is set apart by technology, glorification of financial success, a high standard of living, a fast tempo of life, a pleasure philosophy, faith in democracy, and universal, free, and compulsory education. While there can be no denying that every culture has its distinguishing characteristics, the difficulty of identifying them in a few simple phrases is very great. The chief traits of a culture that give it individuality go to make up what is known as the ethos of culture.

The Individual and Culture

Is culture biologically determined?

An important question concerns the relation of culture to the biological nature of man. Does man's inherited nature dictate the organization of the superorganic? Does his sex instinct dictate that in the superorganic there shall be a family? Does the biological nature of children determine that there shall be games to play? These questions cannot be answered offhand. A tentative answer would be that our inherited disposition gives a general direction to the shape of the superorganic. Our sexual nature seems to indicate that there would be some kind of organization of behavior around the sexual activities. But, if so, the dictation is not invariable as to detail. There are many different kinds of families in the world: monogamous families, polyandrous and polygamous ones, family systems with and without divorce, families with concubinage, large family systems and small family systems. By looking at a thousand infants at birth in some international hospital it would not be possible to tell from their anatomy or from psychological tests on their behavior what types of families they would form, whether they would be monogamous or polygamous, stable or unstable. Such a prediction would be more reliable if we knew in what cultures they would grow up; if we knew that one was to be a Mormon, another one of the polyandrous

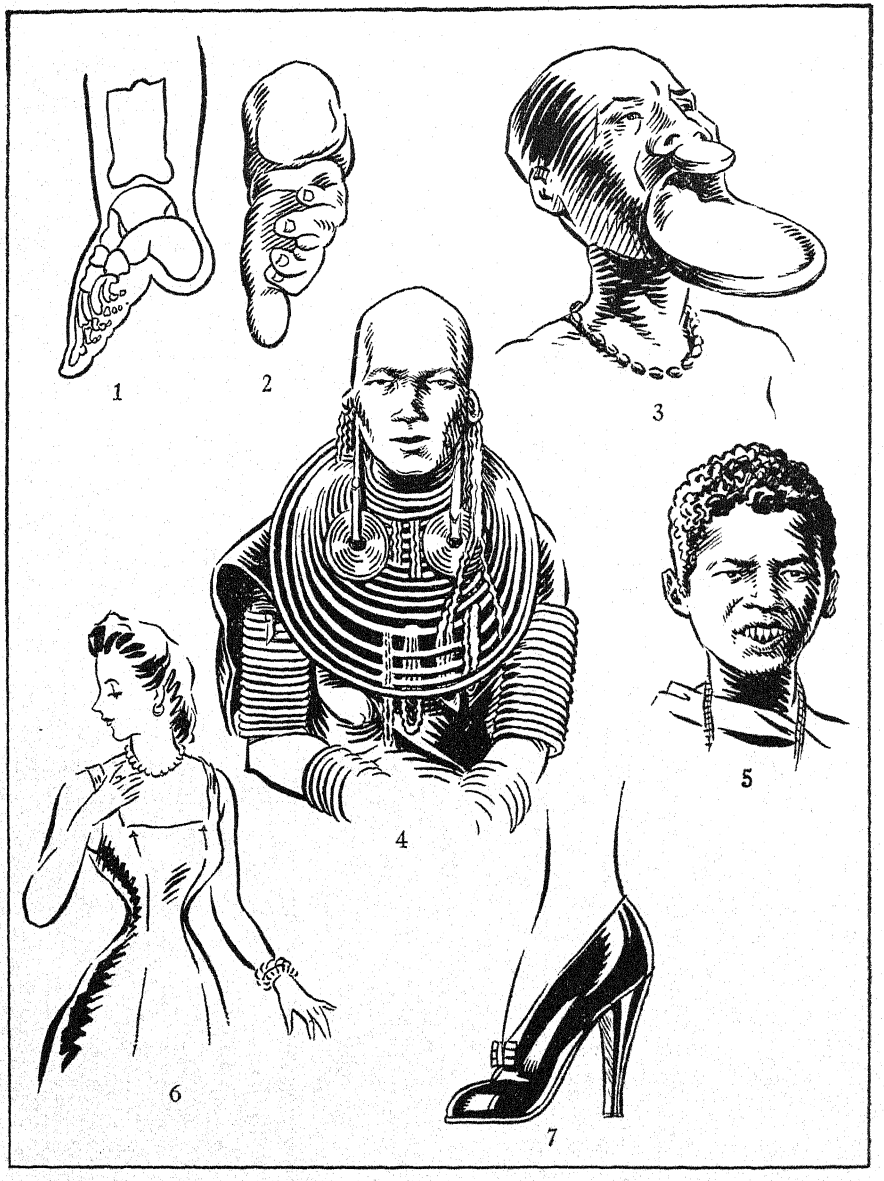


FIG. 11. EVIDENCES OF LACK OF HARMONY BETWEEN BIOLOGY AND CULTURE

The best conditions for biological health do not always dictate the folkways. 1 and 2 show the distortions of the Chinese foot which was bound in infancy, a practice designating elegance in the Chinese culture. 3 shows the extreme distortion of the lips produced by means of flat disks in some cultures. (S. J. HOLMES, HUMAN GENETICS AND ITS SOCIAL IMPORT [*New York: McGraw-Hill Book Company*], *p. 25.*) *The heavy brass rings worn by the Maori woman in 4 impair the usefulness of the arms and body. 5 shows the filing of the teeth dictated by fashion among the Philippine Negritos.* (HAVEMEYER, ETHNOGRAPHY [*Boston: Ginn and Company*], *pp. 104, 177.*) *6. The American wasp waist. 7. The modern high heel, which breaks down the arches. Which of these customs is least objectionable to you? To a Negrito, a Chinese, or a Maori?*

Todas, still another a Roman Catholic. From this illustration it appears that the superorganic determines the particular social organization of the family, not the inherited nature of man.

Inherited nature undoubtedly sets limits to the superorganic and probably indicates broad trends. Clarence Day [1] has visualized the problem in a humorous way by imagining the human race to have been evolved from cats, with our cities filled with great specimens of the cat world, in place of human beings. He thinks the opera would be different. The drama would be all tragedy, with no comedy. The pavement would be replaced by grass strips. There would be more stealthy crime, less light conversation, and so on. It is a question as to just how much detail of the superorganic is determined by our biological nature.

In this connection we may refer back to the "universal pattern" of culture reported in a preceding paragraph. Since all cultures of all peoples are reported by Wissler to have a pattern, which includes speech, family, war, tools, and so on, it might be inferred that these parts of the superorganic are dictated by original nature. But such a conclusion does not follow. For instance, we may have a situation some day where every people has a domesticated animal and knows how to read and write, or perhaps eats with a knife and fork. It does not follow that because every people eats with a knife and fork that its use is dictated by original nature. We should also want to scrutinize carefully the assumptions back of this interpretation of Wissler's "universal culture pattern" before saying that war is determined by inherited nature, and therefore it cannot be eliminated from our culture as long as man's biological nature remains as it is.

The superorganic may be injurious to the organic. If the superorganic is a direct expression of man's inherited nature, then there should be no clash between culture and the biological needs of man. Some culture traits, however, are definitely harmful to the organic life of man. Thus peoples in India eat polished rice and acquire as a result a definite disease of the nervous system known as beri-beri. If they ate wild or unpolished rice, the disease would disappear. They thus, through their social heritage, learn a habit that is definitely harmful physiologically. Learning often involves the discipline of native impulses, which are generally of biological value, or at one time were. Thus the bearing of children when the mother is young, yet mature, is biologically appropriate. Yet many women postpone marriage or bearing children until

[1] CLARENCE DAY, THIS SIMIAN WORLD (New York: A. A. Knopf, 1920).

late in life, well past the best biological period. This they do for various cultural considerations, for instance to learn a profession. The best biological age for marriage does not coincide with the best cultural age. So learning means inhibitions and control. The more learning there is the greater the opportunity for disciplining or modifying the natural expression of the biological impulses. There is a longer period of learning for the offspring of man than for any other animal. John Fiske called it the prolongation of infancy. In fact, man goes on learning all through life, although the period of greatest education is in infancy, childhood and youth. There is abundant opportunity for the superorganic to modify the natural behavior of human beings.

The variety of customs for a single physiological function. That the tendencies to action of our biological nature may be variously trained is evidenced by the great variety of customs that exist around a particular physiological function, such as, let us say, anger.[1] The Crow Indians were a very warlike people; the Eskimo are peaceful. The Greek states almost fought themselves to death, yet during the modern age Greece has not been particularly engaged in war. In America, the English colonists fought with a patriotic fervor in their revolt against Great Britain, while some of the soldiers on the side of the British were Germans who fought for a wage. During the eleventh century, it was feared that Iceland could never be settled because of the rate at which the settlers were killing each other, but in the nineteenth century the murders in Iceland could be counted on the fingers of one hand. Fighting may occur among individuals spontaneously with loss of temper or heightening of emotion. On the other hand, it may be regulated rigidly by a code, as in dueling. Under this code a person may only fight another of his own class; with others he cannot fight no matter what the grievance or how intense the anger. The choice of time, place, and weapons is strictly regulated, and various assistants are appointed to conduct negotiations and to carry out the rules. In contrast, among gangsters in the modern city the approved method is for a small party to take the enemy out for a ride in an automobile, shoot him down without giving him a chance, then dump his body on the roadside.

Gangsters and vigilantes agree that certain offenses warrant death, but they do not have the custom of a trial by court. The family feudists

[1] LILLIAN EICHLER, THE CUSTOMS OF MANKIND (Garden City, New York: Nelson Doubleday, Inc., 1924).

WILLIAM GRAHAM SUMNER, FOLKWAYS.

prefer to fight out an issue rather than to bring it to court. Also there are persons who prefer to settle a dispute by fighting rather than to let the court handle it, particularly if it involves anything that may touch the reputation of women or some intimate family matter. Some societies consider fighting to be a manly virtue, a natural and at times necessary type of behavior. Many fathers go to great pains to teach their children how to fight. In other groups fighting is considered a type of rowdyism, close to the barbaric, that brings nothing but trouble, and that does not help much in making friends, promoting sales, co-operating with fellow employees, or getting along with the boss. Passive resistance among the followers of Gandhi in India is considered to be a great virtue. The Quakers also approve the idea of no physical resistance. Fighting is generally not considered proper among women, though in some types of Negro life in the United States, fighting among women, or between men and women, is considered all right or else not so severely condemned as among white women. The impulses to anger are probably not greatly different in women from what they are in men, and temper has as much of a drive with females as with males.

Cultural behavior in regard to fighting shows great variations among different peoples over the world and also among the same peoples at different periods of history. Original nature does not dictate any single type of fighting nor does it determine that fighting shall occur with any definite frequency, or indeed that it shall occur at all. Evidently the different cultures determine the details of how original nature shall behave in regard to pugnacity.

FOLKWAYS

These types of behavior, if they are organized or repetitive, have generally been called customs. There are many kinds of customs, some of which are called manners, others etiquette. Some years ago an impressive book was written on customs with the title of *Folkways*.[1] Since then, "folkways" has become a common expression to designate customs. Sumner, the author, emphasized the variety of customs and their binding nature. These two qualities he expressed very forcefully, and the term folkways has since come to suggest variety and values.

The variety of folkways. The folkways of eating are interesting to consider, because of the biologically imperative nature of eating as contrasted with fighting. Eating is biologically necessary, while fighting

[1] SUMNER, *op. cit.*

may not be, although it seems to have been necessary for survival in the past. As regards eating, it is well known that the body system requires carbohydrates and fats for energy, protein for tissues, calcium and phosphorus for bones and teeth, iron for the blood and many other acids and minerals. Among animals without appreciable culture the appetite is a good general guide to the bodily needs. When swine were offered a free choice of a variety of foods on a "cafeteria" system in separate containers, so that the pigs could eat as much of each as they wanted, the diet they chose was one that provided the necessary nutriments. The precise amounts needed, however, were not estimated.[1] Rats, when given a free choice, ate three times their optimum requirements of calcium and sodium chlorate and not enough vitamin A. As for human beings, newly weaned babies were offered a free selection of 35 foods, and are reported to have secured the variety necessary to supply their various chemical needs. In the list of 35 foods, however, sugar, cookies, candy and jam were not included, so it is not known what the choices would have been had these confections been included. There is also the question of whether the chemist conducting these experiments has measured precisely all the many acids, vitamins, minerals needed.

The experiment with the newly weaned children suggests that there is a "natural wisdom of the body" which is a reasonably good guide to the selection of a balanced diet. Yet people in many places show a variety of food preferences not based on positive food values. There is plenty of evidence of learned tastes for foods that are either harmful or of less value than others. Such are the tastes for tea, coffee, alcohol, tobacco, hashish, coco leaf, and betel nut. Many persons prefer the deficient white bread to the rich whole wheat bread. The Orientals prefer polished rice to the unmilled product. The products of the cow were not eaten in China. Cow's milk with its valuable properties is viewed with prejudice by some peoples, with much the same feelings we have about excretions. Horse meat is eaten in continental Europe, but not in the United States. Ants and insects are eaten by Indians in Brazil, but not in Europe and America, though snails are. Prejudices in foods bear little relation to food values, and are often quite irrational. A child may not eat a food because he does not like its color. Since individual prejudices in regard to food are so irrationally formed and have so little

[1] E. V. McCollum *et al.*, NEWER KNOWLEDGE OF NUTRITION (New York: The Macmillan Company, 1939, fifth edition), chap. XXV.

reference to food merits, it is easy to see how social prejudices in regard to foods could arise and be fixed into customs. Primitive people do not kill the animal that is the totem for the clan, for instance the turkey, though it be a very good food, even though other food in the vicinity is scarce.

Culture has a way of setting up different customs in regard to fundamental biological behavior such as eating and fighting. The same wide variety of folkways is shown in other activities, such as those centering around marriage, birth, death, sex, kinship, worship, labor, trade, production, dress and art. Some knowledge of this variety of customs can be had by reading a book on customs, such as Sumner's. The educational value of such reading is not unlike that gained by travel. The individual who has never been out of the country is likely to think that the customs of his neighborhood are the only ones and the best ones. A visit to the big city or to other lands shows that there are other customs than our own and that they may be just as good, though some of them may be worse, as viewed from the point of biological welfare. Many varieties of the superorganic are possible. One cannot take a blueprint of our inherited traits and read off therefrom the structure of the social institutions and customs. Blurred outlines of the major parts of culture and its limits may be seen, but the native impulses are not a guide to particular customs.

The binding power of customs. Another aspect of custom is its compulsive nature. We must follow the existing customs. There are dinner parties to which a costume featuring a white tie and a coat with long tails must be worn by the men. At a state dinner an ambassador must be seated closer to the host than a minister, and the minister may not precede an ambassador in entering the dining room. In the deep South a white man does not sit down at the dinner table with a Negro. At one time among the elite, the game of tennis was played by men in white flannels; no other kind of cloth was permitted, not by edict, but by custom. If one accepted an invitation and came in white ducks, the invitation would not be extended again. In old New Orleans unmarried girls could not go to a party attired in a colored dress. It must be white. Customs are often followed with less deviation than are laws or the Ten Commandments.

How widely a culture regulates behavior through the medium of the group is shown in the following list of acts that are controlled in twenty-five different cultures of preliterate peoples.

TABLE 1. ACTS OF BEHAVIOR CONTROLLED BY TWENTY-FIVE DIFFERENT CULTURES [1]

Per cent of Cultures Controlling	Kind of Behavior
100	eat, vocalize, talk, coitus, incest, give, marry, be formal, be named, mourn, harm others, harm self
96	enter, clothe self, steal, mutilate self, murder
92	adultery, in-law incest, take, cleanse self, touch, work
88	suck, drink, hinder food quest, pollute food
80	look, respect others, name others, protect self
76	sleep, help others, be intimate, protect others, kill animals
72	urinate, premarital coitus, obey others, purify self, seclude self, disrespect others, insult others, mutilate others without pain
68	approach, clothe others, punish others
64	avoid retaliation, hinder manufacturing, defecate
60	cannibalism, wail, cry, pay others, cure self, hunt, fish, till, etc.
56	sit, cleanse others, be angry
52	inhale, sing, be hospitable, conceal self
48	learn cowardice, assume prerogatives, quarrel, play, invite bad luck
44	spit, prepubertal coitus, dance, ornament self, cure others, express grief, bewitch others, fight, punish self
40	smoke, massage, facilitate delivery, teach others, disobey others, be obscene
36	chew, perspire, conceive, walk, be lazy, induce barrenness, be friendly, pacify others, deceive others
32	consume narcotics, vomit, rape, thank others, conceal genitalia, carry, confess guilt, accidental homicide, abortion, infanticide, manufacture, destroy goods
28	bite, flatus, marital coitus, step on, point, divorce, induce fertility, purge self, exhibit bravery, anger others, kill self
24	dream, suckle, betrothal adultery, remain, avoid, hear, hinder delivery, express pain, hinder war, aid food quest, violate mores and taboos
20	lick, whistle, sodomy, lie, accompany, be greedy, be independent, be kind, transvestitism, increase breast milk, purify others, confine self, betray others, commit treason
16	cough, prostitution, stand, grasp, scratch, fear, discourage sucking, ornament others, ridicule others, mutilate others
12	eat condiments, kiss, sneeze, whisper, laugh, homosexuality, run, be dignified, remove breast milk, greet others, ask permission, atone for crime

[1] Adapted from C. S. FORD, "SOCIETY, CULTURE AND THE HUMAN ORGANISM," THE JOURNAL OF GENERAL PSYCHOLOGY, 20:167–68, January, 1939.

TABLE 1—*continued*

Per cent of Cultures Controlling	Kind of Behavior
8	become intoxicated, shout, think, masturbation, extramarital coitus, seduction, bestiality, crouch, jump, be jealous, be sex greedy, be just, warn others, plunder, arson
4	taste, smack lips, sniff, grimace, tremble, stretch, sleep walk, sleep talk, give birth, abnormal sexual practices, faint, exhibitionism, crawl, swim, climb, tickle, hand clapping, wink, hate, be obstinate, be sulky, be irresponsible, be dependent, be loving, be industrious, be thrifty, encourage sucking, beg pardon, exhibit disgust, boast, frighten others, be frightened
0	salivate, belch, hiccough, breathe, flush, blush, shiver, yawn, menstruate, nocturnal emission, sadism, masochism, kick, blink be curious

Table 1 shows how widely the biological activities of the human animal are regulated as a price of his living in a group and having the advantages of a culture. The very limited cultures of dogs or monkeys make no such demands on behavior. The advocates of complete freedom of action of the individual will peruse this list with interest.

MORES

When the customs concern matters more important than seating arrangements at a dinner table, such as marriage with one or more wives at the same time, the binding aspect becomes of great significance. The conduct of human beings is thus regulated in matters of fundamental human drives, such as ambition, love, desire for power, and economic motive. To emphasize this compulsory feature Sumner brought into use the word *mores*, which is the Latin word for customs. *Mores* is the plural of the singular form *mos*, which is never used, the common practice being to refer to a single given custom as being in the mores. "I mean by [mores]," states Sumner, "the popular usages and traditions when they include a judgment that they are conducive to societal welfare, and when they exert a coercion on the individual to conform to them, although they are not co-ordinated by any authority." [1] Important mores of our country and our time are anti-slavery, democracy, and monogamy. At other times in this country and in other countries slavery, aristocracy, and polygamy have been in the mores.

Conformity to the mores. Behavior contrary to the mores is not permitted by society. One would hardly dare advocate slavery today,

[1] SUMNER, *op. cit.*, p. iii.

much less attempt to hold anyone in slavery. Even to hint that democracy is not the best type of government is to invite suspicion, and few would speak openly in favor of restricting voting to property owners. For a woman to have two husbands at the same time is hardly conceivable. The mores are not, however, always negative prescriptions inhibiting action. They may require positive action also. Thus in a society where the family system is strong, and where courts of justice are absent or inadequate, an injury to a member of the Hatton family by a member of the MacConnell clan must be avenged. The Hatton family must inflict a similar injury on the MacConnells. If the taking of a life is involved, then a male member of the Hatton family must kill someone in the MacConnell family. If there is only one male to make the reprisal, he must do so even though he be a poet, a person with a horror of bloodshed, a believer in the commandment "Thou shalt not kill," or one who thinks that the courts and juries are better methods than feud practices. Such a person must kill, else be scorned by his fellows, ostracized, called a coward, and condemned to a life of shame among his fellow men. The mores compel a person to take positive action. In an age not very far behind us, it was the duty of the male to protect the female. If a daughter or a sister had her virtue violated through force or undue persuasion by a male of a class with whom marriage was not permitted, death for the man was decreed, not by law, not by the courts, but by the mores. A man must avenge the honor of his daughter or his sister. If a man did not avenge the honor of his family he was considered to be a weakling unworthy to mingle as a man among men.

A power so strong as the mores may compel the human animal to practices that are contrary to his physical well-being; that is, the superorganic may impose practices on the organic that are not in harmony with organic well-being. Among certain classes in Chinese society it was the custom for refined women to bend the toes of their girl babies under and then bind the bent-under part to the foot. The practice impaired walking and reduced physiological efficiency. Yet Chinese society thought it a beautiful custom, an evidence of refinement, and in harmony with an ideal of womanhood. A girl brought up with unbound feet would have resented it and felt inferior, though physiologically she would have been superior. We are obedient to the mores, even though they be physically harmful. It is a peculiarity of culture that it can impose, via the mores, violences to biologically healthy activities.

The mores can make anything right. The power of the mores is so strong that Sumner gives one of his chapters in *Folkways* the title: "The Mores Can Make Anything Right and Prevent the Condemnation of Anything." Is there anything that the mores cannot make right? [1] The mores in the South made slavery right a hundred years ago. The mores in Germany condemn democracy so that a young German would be ashamed to admire anything democratic. The mores can even make the abhorred incest right. In ancient Egypt it was considered proper and right that the highly selected noble blood of royalty should be intensified and perpetuated by brothers marrying sisters, very much as race horses are interbred today. Incest was something of which to be proud. The mores can make the eating of human flesh right. The Chames of Cochin China eat the livers of slain enemies, believing that the liver is the seat of courage, which will be transmitted to them. When the chief of the Miranhas was asked why his people practiced so abominable a custom as cannibalism he replied that he was surprised that some people thought it an abominable custom. He said, "You whites will not eat crocodiles or apes, although they taste well. If you did not have so many pigs and crabs, you would eat crocodiles and apes, for hunger hurts . . . When I have killed an enemy it is better to eat him than to let him go to waste. Big game is rare because it does not lay eggs like a turtle. The bad thing is not being eaten." [2] The mores made it right for the Eskimos to kill their old people. In ancient Sparta infanticide was an established custom. With us it is right to kill murderers, and to take the lives of soldiers in war.

What is right at one time may be wrong at another. The mores can make something right at one time and wrong at another. The mores make slavery wrong today, yet a century ago they made slavery right. It was wrong for a woman to be seen at a bathing beach a few years ago without stockings and a skirt reaching to the knees. Now it is all right to wear a bathing suit that shows the legs. At that earlier time it was not right to speak in public of the legs of women; the word "limbs" was preferable. At the beginning of the century it would have been wrong for a woman to smoke a cigarette. Forty years later it is all right. Today there is no censure for those who engage in sports on the Sabbath;

[1] The discussion here is concerned with "right" as defined in practical terms by prevailing custom, not with "eternal verities" such as those which religious and ethical systems attempt to set up. According to the latter, customs can compel any kind of conduct, but the compulsion does not necessarily make the conduct "right."

[2] SUMNER, *op. cit.*, p. 331.

in colonial times such conduct was unthinkable. "Virtues and vices," wrote Sir James Jeans [1] aptly, "have frequently changed places as life moved on through the ages; witch burning used to be a virtue and lending money at interest a vice."

Mores and law. In civilized societies the mores tend to take the form of law, yet the law of a land and its mores do not always coincide. On the one hand, the law may include behavior not in the mores. The eighteenth amendment to the Constitution of the United States is an oft-cited example. The sale of intoxicating beverages was prohibited by law but sanctioned in places by prevailing public opinion. Under such circumstances law is generally ineffective. The statute books of the United States are heavy with obsolete restrictions, for example the famous blue laws prohibiting such activities as Sunday sports, buying and selling.[2] On the other hand, everything to be found in the mores does not become part of the law. Some things are "simply not done." They are too well known and too widely respected to require formal enactment. Or they may be delicate, personal matters which could not well be fitted into law. In England, for example, it is against the mores for anyone to reveal the substance of a private conversation he may have had with the King, but there is no actual law against such a breach of confidence. There is only an "unwritten law" with which English governmental officials are assumed to be familiar. Such codes of ethics are not uncommon among the members of special professional groups.[3]

FOLKWAYS AND MORES IN A HETEROGENEOUS AND CHANGING SOCIETY

Customs are usually thought of as being well established and difficult to change. Those folkways that come and go rather frequently are called fashions and are seldom referred to as customs. This permanence of customs was called by Walter Bagehot [4] the "cake of custom," mean-

[1] SIR JAMES JEANS, LIVING PHILOSOPHIES (a symposium) (New York: Simon and Schuster, 1931), p. 110.

[2] Every state in the Union except California and the District of Columbia has had such laws. Prior to 1928 it was unlawful for a man in Connecticut to kiss his wife on Sunday. W. C. WHITE, "BYE BYE BLUE LAWS," SCRIBNER'S MAGAZINE, 94:107–09, August, 1933.

[3] For purposes of clarification, certain professional groups have set down their codes in writing. For example, the American Medical Association publishes a booklet, PRINCIPLES OF MEDICAL ETHICS, setting forth the responsibilities of the physician to his patients, to other members of the profession, and to the public. The code prohibits advertising in public prints, endorsement of secret remedies, and the acceptance of rebates on prescriptions. Serious violation of the code may lead to expulsion from membership in the Association and loss of important privileges.

[4] WALTER BAGEHOT, PHYSICS AND POLITICS (New York: D. Appleton and Company, 1875).

ing that as mud hardens in the course of time, so do the folkways. He was much concerned with how the "cake of custom" is solidified and broken.

Customs can become hardened more readily in a relatively stationary society than in a changing one. When customs are repeated for generations, the pressure to make individuals conform to them becomes very great. When a man in a primitive culture like the Carib is asked why he practices *couvade* (a custom requiring the husband to lie in when his wife gives birth to a child), he replies that it has always been done.[1] It is significant that nearly all of the folkways and mores cited by Sumner as having binding power are drawn from relatively stationary societies. In these primitive cultures, fashions, that is, rapidly changing customs, are quite rare. In a society that is changing rapidly the customs are not repeated for a long enough time to acquire a very powerful binding force. Changing fashions are followed closely only by a portion of the population. They have some binding power. If it is fashionable to wear black dresses, then they will be worn by the fashionable ladies; but not every one in the class will wear them. The condemnation for wearing other kinds will not be severe. If the style in hats changes very rapidly from season to season, it is difficult for the pressure for perfect conformity to be exercised over a large area.

Furthermore, a society may be made up of many different groups. There are "society" women and working classes, villagers and city dwellers, religious groups and sporty crowds, Californians and New Englanders. Each group has its own folkways. Hence it is not so easy to maintain conformity in so heterogeneous a society. Religious groups will observe a holy day, but the sporty crowd does not so readily conform. There are folkways common to farmers and urbanites. They both eat with knife and fork, three times a day. But they do not get up in the morning at the same time, nor do they display the same neighborliness. The farmer speaks to those he meets on the road; the city person does not unless he knows them. Common customs would be easier to maintain if farmers and city people were alike in more of their activities. Hence, in modern society, the phenomenon of the conformity-making power of folkways and mores is not so impressive as in the homogeneous, stationary, preliterate cultures.

Even so, there is a good deal of stability and cultural compulsion in

[1] EDWARD B. TYLOR, RESEARCHES INTO THE EARLY HISTORY OF MANKIND (London: John Murray, 1878), pp. 291–302.

modern society. Not everything changes rapidly. During the last two decades, the speed at which one is permitted to drive a motor vehicle has greatly changed, but there has been no change concerning the side of the road on which a vehicle may be driven. Styles in women's clothes change frequently, but changes in men's clothes are not so radical. Though the mores regarding slavery have changed completely within a hundred years, and the mores governing the relations between the sexes have been somewhat modified, the mores of monogamy have changed little, if at all. There is thus in a changing society considerable variation among the different folkways and mores in respect to the rate with which they change, and the degree of their binding power. Moreover, the mores, which are concerned with more fundamental matters than ordinary folkways, are naturally more resistant to change. In conclusion, then, we may say that the folkways and mores, while less compelling in New York City than among the Eskimos or on Main Street in Sauk Center, are not without binding power in modern urban civilization. Indeed, it is not possible to conceive of a community sustaining organized social life without "rules of the game" that are generally respected and enforced.

SUMMARY

This chapter has shown that there are two distinct ways in which the behavior of organisms may be determined, (1) through heredity, and (2) by learning from the group. In the case of man, heredity contributes such behavior as sucking, swallowing, and blinking, while behavior like talking English, wearing a felt hat, and driving an automobile is learned from others. The processes involved in the acquisition of these two types of behavior are fundamentally different. The first is a biological process of transmission by means of the fertilized egg; the second is a psychosocial process, involving transmission by means of a system of communication, based on the capacity of man to learn.

Behavior transmitted by learning from one generation to another is called culture. The beginnings of social learning and culture are to be found far back in the animal world, but the absence of speech, even among the higher apes, limits greatly the amount of the acquisition. Man alone has a substantial culture.

Man did not always have a culture as rich and complex as the one he now has. Starting hundreds of thousands of years ago with practically no material culture, that is, with sticks and cracked stones, and with relatively little non-material culture, man has achieved the amazing technology and social organization he now enjoys. The evidence of growth has been presented in this chapter to show how culture has come to assume the commanding place it occupies in human experience. Culture touches and affects man's life in numerous significant ways, as will be shown in subsequent chapters.

A culture consists of inventions, or culture traits, integrated into a system, with varying degrees of correlation between the parts. A useful classification of parts is in terms of material and non-material culture. It is the material culture that looms large in our day; it is changing most rapidly and forcing the other parts of the superorganic, such as family life and religion, to make adjustments to it. Both material and non-material traits, organized around the satisfaction of the basic human needs, give us our social institutions, which are the heart of a culture. The institutions of a culture are interlinked to form a pattern which is unique for each society.

The transmission of the social heritage could not take place without the continuity of life, and the capacity for learning, provided by heredity, but culture itself is only in a very general way an expression of the inherited nature of man. Heredity sets limits and indicates broad trends, but does not dictate the details of culture. If culture were a direct expression of man's biological nature, then culture would be in complete harmony with biological nature. But evidence has been given to show that there are many harmful customs in different cultures. Moreover, a great variety of customs, often contradictory from one culture to another, exists for a given physiological function, like anger or eating. These established customs, or folkways, regulate the biological activities of man and dictate how he will behave. Particularly binding are the mores, customs that are regarded as essential to group welfare. For a practice to be established in the mores is for it to be regarded as right and proper, even though the practice is harmful to health or to life itself. What is deemed right at one time may be deemed wrong at another in the same society. The superorganic is, then, an order of phenomena different from the organic and goes its way with a certain amount of independence from the organic.

QUESTIONS FOR DISCUSSION

1. Discuss the implications of the statement that Aristotle was the last man to be familiar with all the culture of his time.
2. What is the significance of the fact that man alone has a substantial social heritage?
3. How important a part of culture is language? Why?
4. What about the culture of the Eskimo surprises you?
5. The polar bear has developed a shaggy coat as a protection against the cold, but the Eskimo who occupies the same region is not enveloped in heavy hair. How does the Eskimo adjust to the cold environment? In what ways is this type of adjustment superior to biological adaptation? In what ways inferior?
6. Folkways vary from place to place, and from time to time in the same place. What is the importance of this?
7. How are mores to be distinguished from folkways? What are

some things in our mores at present, besides those mentioned in the chapter?

8. What is the effect of rapid changes on the mores? Give examples.
9. How does culture aid man in making adjustments? Hinder him in his adjustments? Give illustrations.
10. How can you show that customs are not dictated by man's biological nature?
11. What are the principal parts of culture? Using illustrations, show how the different parts of a culture are integrated into a system.
12. What is a culture complex? Pattern? Ethos? Do foreign observers agree as to the ethos of the United States?

TOPICS FOR REPORTS

1. The case for and against the presence of culture on the subhuman level.
2. Variations in social pressure attaching to different folkways and mores in America at the present time.
3. Changes in American mores in the last century.
4. The social organization of ants and bees.
5. A comparison of the grammar of the Eskimo and the English languages.
6. A. L. KROEBER's conception of the superorganic. "THE SUPERORGANIC," AMERICAN ANTHROPOLOGIST (N.S.), 19:163–213 (1917); "THE POSSIBILITY OF A SOCIAL PSYCHOLOGY," AMERICAN JOURNAL OF SOCIOLOGY, 23:635–50 (1918).
7. RUTH BENEDICT: PATTERNS OF CULTURE.
8. WILLIAM GRAHAM SUMNER: FOLKWAYS.

SELECTED READINGS

FREUCHEN, PETER, ARCTIC ADVENTURE. New York: Farrar and Rinehart, 1938.

This true tale of adventure will serve as an introduction to the Eskimo, whose material culture is much like that of the

Magdalenian people of the last ice age in Europe. It should be followed by other books such as FRANZ BOAS'S THE CENTRAL ESKIMO (*6th Report, Bureau of Ethnology*) *and* E. W. NELSON'S THE ESKIMO ABOUT BERING STRAIT (*18th Report, Bureau of Ethnology*). *Popular accounts are* KNUD RASMUSSEN'S THE PEOPLE OF THE POLAR NORTH, *and* V. STEFANSSON'S MY LIFE WITH THE ESKIMO. *The student would do well to choose some one primitive culture and endeavor to become especially well acquainted with it. For the Melanesians see the excellently written books of* MALINOWSKI. *The Australian aborigines have been written about a good deal by* N. W. THOMAS, SPENCER *and* GILLEN, HOWITT, ROTH, *and* WARNER. A. R. RADCLIFFE-BROWN *has an excellent book on the Andaman Islanders, and* ROBERT H. LOWIE *is an authority on the Crow Indians.*

GOLDENWEISER, ALEXANDER A., ANTHROPOLOGY, AN INTRODUCTION TO PRIMITIVE CULTURE. New York: F. S. Crofts and Company, 1937.

This treatise is especially good in dealing with the nonmaterial aspects of culture. It also contains excellent accounts of a few primitive cultures, as does EARLY CIVILIZATION *by the same author.*

MURDOCK, GEORGE P., OUR PRIMITIVE CONTEMPORARIES. New York: The Macmillan Company, 1926.

This brief description of a variety of preliterate cultures is most useful in furnishing illustrative material for the analyses and discussions in the text.

OSBORN, HENRY F., MEN OF THE OLD STONE AGE. New York: Charles Scribner's Sons, 1918.

Still one of the most useful accounts of the remains of early cultures in Europe, furnishing a perspective of the evolution of early material culture. The time chart is subject to revision, and the implied correlation between brain case and cultural achievement is to be questioned for the later ice-age cultures.

SUMNER, WILLIAM GRAHAM, FOLKWAYS. Boston: Ginn and Company, 1906.

One of the great books on sociology; great because it has exercised so profound an influence in showing (a) the power of

custom, and (b) the variability of moral codes. There is a wealth of illustration.

WALLAS, GRAHAM, OUR SOCIAL HERITAGE. New Haven: Yale University Press, 1921.

The first few chapters give a readable exposition of the conception of social heritage, without the usual emphasis on primitive culture.

III. THE CONTRIBUTION OF BIOLOGICAL FACTORS

HUMAN BEINGS differ. Even as it has been said that no two leaves on any tree are exactly the same, just so no two individuals are precisely alike, not even so-called identical twins. Yet the variety is not wholly miscellaneous; it allows of some classification. There are white individuals among us, others are yellow and some are black. There are males and there are females. Some individuals are very bright, others very dull; some rich and some poor. There are the well and the sick, the sane and the insane, the law-abiding and the criminal, as well as all the gradations in between.

Human variability takes the sociologist's attention for a number of reasons. Mankind insists on ranking human differences, judging them as either good or bad, beautiful or ugly, successful or unsuccessful. Geniuses are generally preferred above imbeciles, and the rich among us are honored more than the poor. Because human variability has so much meaning for social life, it is important to inquire why individuals differ from one another. Are these differences a result of special endowment bestowed by nature through heredity, or are they due to the influences of society? In brief, in this chapter, we aim to trace the relation of human variability to both biological heredity and social experience.

THE NATURE OF VARIABILITY

ATTRIBUTES

Before seeking to account for human variability, however, it is desirable to describe briefly and in general terms the phenomenon of variability itself.[1] Variability is of two kinds. A trait may vary in degree or it may vary in kind. A good illustration of the latter type of variation is the sexual characters. There are two kinds, male and female, with no

[1] For a more elaborate discussion see S. J. HOLMES, HUMAN GENETICS AND ITS SOCIAL IMPORT, chap. VII, "Variability — Its Kinds and Its Causes," pp. 76–86; chap. VIII, "The Measurement of Variation," pp. 87–97.

intermediate types, except in pathological cases, at least so far as objective measurable characteristics at present show. Some of the secondary sexual characteristics of the male, such as body contour, may vary in the direction of that of the female, but there is a big gap between the two types. Variation of this kind is said to be discrete, or discontinuous. Eye color presents somewhat the same picture. Blue eyes merge into gray, but the variations cluster around blue and around gray, with few in-between clusters. These different types are sometimes called attributes.

CONTINUOUS VARIATION

Variation in stature presents a very different picture. If 1000 soldiers were lined up in order of height, from the shortest to the tallest, a line joining the tops of their heads would make a smooth, gently sloping curve. Variations of this nature are termed differences in degree, rather than kind, and are seen to be continuous if a large sample of the population is measured. The statistics of so many soldiers would be difficult to present in a book if the individual heights were thus arranged in order.

TABLE 2. HEIGHT OF SOLDIERS *

Height in Inches	Number of Soldiers	Height in Inches	Number of Soldiers
60–60.9	197	67–67.9	3017
61–61.9	317	68–68.9	2287
62–62.9	692	69–69.9	1599
63–63.9	1289	70–70.9	878
64–64.9	1961	71–71.9	520
65–65.9	2613	72–72.9	262
66–66.9	2974	73–73.9	174

* G. C. WHIPPLE, VITAL STATISTICS (New York: John Wiley and Sons, Inc., 1919), p. 377. Reprinted by permission

Usually the statures of many cases are grouped as in Table 2, which shows the statures of 18,780 soldiers in 1918. In this sample there are 197 soldiers with statures between 60 and 61 inches. These data can be shown in a picture by drawing vertical columns proportional to the number of soldiers over each inch of height on a base scale as is shown in Figure 12.

The drawing in Figure 12 can be smoothed out to the curve shown in Figure 13 which emphasizes the continuousness of the variation more than does Figure 12.

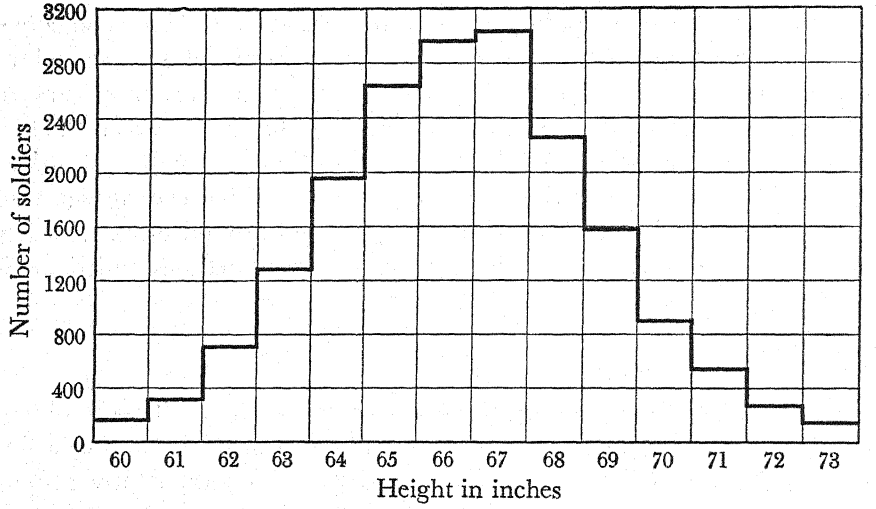


FIGURE 12. DISTRIBUTION OF THE HEIGHTS OF SOLDIERS

The numbers on the base line represent the scale of the heights in inches of the soldiers, and the heights of the columns erected over the scale represent the number of soldiers of a given height. There are very few short soldiers and not many tall ones, while most of them are near the average in height. The number above normal are approximately equal to the number below normal in height.

The curve has somewhat the contour of a bell; hence it is frequently referred to as a bell-shaped curve. This type of curve is loosely referred to as a normal probability curve, since when it is perfectly symmetrical it is very much like the mathematical normal probability curve. We may say that the probability of a soldier being near the middle of the scale is great and the probability of his being near either end of the scale is very small. Almost all biological traits, when measured and plotted in large numbers, exhibit this type of curve.

The concept of variation as continuous, rather than discrete, seems hard to grasp. We tend to think of persons as being either quick or slow, good or bad, forgetting that these terms refer to traits found at the extreme ends of a continuum. When we say that persons are bright or dull, we are merely picking out the extremes, forgetting the average. Picturesque and dramatic though such classifications may be, they are far from accurate, for most variables are continuous and not discrete. The habit of classifying into only two categories is a serious distortion of reality and is inaccurate reporting. There are more than the two types: introverts and extroverts. These are merely two extremes. Actually there are various gradations in between. Why we have such a

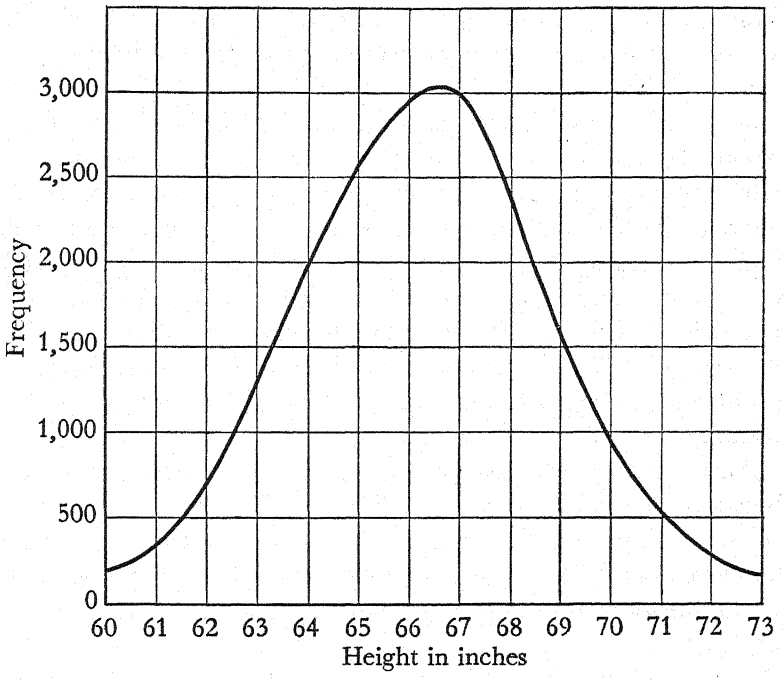


FIGURE 13. FREQUENCY CURVE OF THE HEIGHTS OF SOLDIERS

A smooth line has been drawn by joining the tops of the columns in the preceding figure showing the distribution of the heights of 18,780 soldiers. This gives a smooth curve approximating the well-known normal probability curve. Nearly all of the biological traits, when measured for sufficiently large numbers of people, are distributed somewhat like the heights of soldiers. Psychological traits also seem to follow such a distribution. Taken from FREDERICK C. MILLS, STATISTICAL METHODS *(New York: Henry Holt and Company, 1938), p. 87. (Revised edition.)*

mania for dichotomies is not clear. It may be due in part to a demand for simplicity, but it may also arise from a tendency to exaggerate distinctions, which in turn derives from our love of the dramatic.

WHY A BELL-SHAPED CURVE?

There has been considerable speculation as to why so much biological data when measured and plotted take the form of the bell-shaped curve. One theory claims that the chances of death are greater for the extremes and less for the average. Some evidence seems to support this hypothesis. The death rate for the very small and the very large is much greater than that for average-sized men.[1] Weights of newborn babies, however,

[1] STATISTICAL BULLETIN (New York: Metropolitan Life Insurance Company, 18(5):2, May, 1937).

also conform to the normal probability curve, thus giving rise to the hypothesis that heredity is the determining force in producing this bell-shaped variability pattern.

It should be noted, however, that variability also results from the operation of environmental influences. La Piere [1] found that of 100 auto drivers who approached an important street crossing in a residential district which was unguarded by stop signs or a policeman, 1 driver stopped completely, 21 slowed up considerably, 65 slowed up a little, 12 went on as before, while 1 driver speeded up a little. The behavior of these drivers, which conforms to the normal probability curve, could hardly be ascribed to any genetic factors. It would seem to be essentially the result of social experience. Environment, then, produces variability even as does heredity; and long and heated have been the controversies as to the relative importance of the two factors. Before we can accurately assess their rôles, however, it is of vital importance that we gain a further understanding of the causes of variations. How do the genetic and environmental factors operate to produce these variations that are of such tremendous importance to man?

The Causes of Variability

Heredity is frequently regarded as a rather constant factor. In other words, it sets certain limits to variation; thus, while one duck may not look exactly like another duck, there is no mistaking it for a chicken. Man, familiar as a hunter and as a farmer with a variety of animals, notes that a dog and a bear act differently; it is futile to try to make them act alike. Thus man becomes aware of the deterministic nature of heredity.

It was once assumed that birds were always birds, man was always man, and that biological differences were stable. Today the facts of evolution are almost commonplace. Darwin has shown that man was not always man, but has evolved from other forms. Since heredity appears to be so stable a factor, what are the forces which modify it, bringing about this variability which we note on every hand? They are both biological and environmental. A discussion of them includes the important factors of mutation, selection, intermixture and environment, which, operating singly and together, produce a picture of almost infinite variability.

[1] R. T. La Piere and P. R. Farnsworth, social psychology (New York: McGraw-Hill Book Company, 1936), p. 400.

MUTATION [1]

If there has been evolution as Darwin and Wallace showed, there must have been changes in the germ cells, the carriers of heredity. With the exception of some very fragmentary knowledge regarding the influence of light, temperature and poisons, little is known about these changes that take place in the germ cells. Light has been observed to change the egg cell of the sea urchin and the X-ray has been definitely shown to alter the egg of the fruit fly. The effects of X-ray bring about changes in the wing structure and the eye of the fruit fly, *drosophila melanogaster*, which are inherited and perpetuated by the offspring.[2]

The nature of mutation. When these changes in the germ cells are permanent, that is, when the organisms of successive generations carry these changed cells, they are called mutations. Mutations may be thought of as producing variability in kind. De Vries,[3] one of the earliest formulators of the mutation theory, discovered a primrose which was different in kind from the other primroses he knew. Not only was it a dwarf variety, but its stem and leaves were also different from the others around it. On cultivating this dwarf primrose De Vries found that it bred true. He had discovered a mutating plant. Since that time many other mutations have been found. The question of what particular physical or chemical influences bring about these mutations, however, is still an almost unexplored continent in science.

It is known that the mutations occur in the genes, minute substances about the size of a molecule strung together like beads on a chain. These chains, called chromosomes, number twenty-four in the germ cell of man. In *drosophila melanogaster*, the extensively studied fruit fly, there are only four. Brilliant work on the part of many investigators extending over a quarter of a century has resulted in a fund of rich information about the genes of this fruit fly. It is now known what traits each of the several hundred genes carries, and their locations on the chromosomes have been accurately determined. Maps of the chromosomes of the *drosophila melanogaster* have been constructed showing the location of the genes which are determinates for many traits, such as wing formation. This has been done, by the way, without ever seeing a gene, though now

[1] See T. H. MORGAN, THE THEORY OF THE GENE (New Haven: Yale University Press, 1928), for a comprehensive discussion of this subject.

[2] H. J. MULLER, "ARTIFICIAL TRANSMUTATION OF THE GENE," SCIENCE (N.S.), 66:84–87, July 22, 1927.

[3] HUGO DE VRIES, THE MUTATION THEORY (Chicago: Open Court Publishing Company, 1909), p. 219.

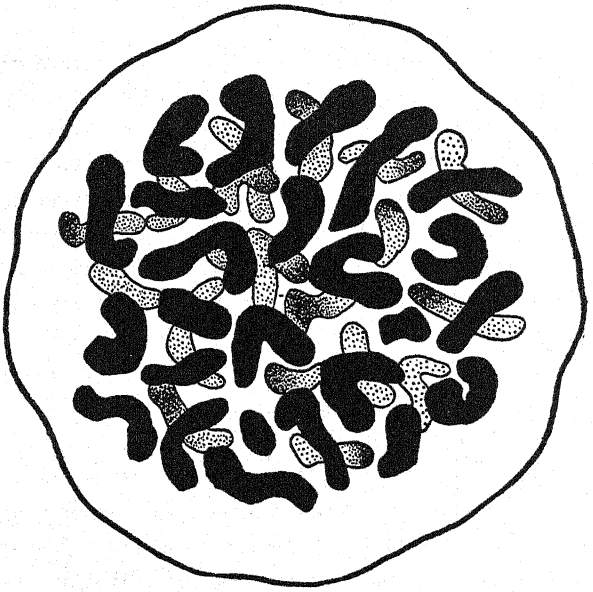


FIGURE 14. HUMAN CHROMOSOMES

Out of these microscopic threads of living matter come all the hereditary characteristics which we see in adult man. From A. SCHEINFELD, YOU AND HEREDITY *(New York: Frederick A. Stokes Company, 1939).*

they can be seen as a result of new discoveries. For a fly with a missing trait, say a large wing, the microscope shows the particular gene to be missing from its proper place on the chromosome.

It has been found that the combined influence of several genes is necessary for the production of a single trait, such as eye color. But much research has revealed that mutation in one specific gene will bring about a change in eye color.[1] While the general mechanism is the same, at the present time no such extensive knowledge about the genes and chromosomes of man is available.

The spread of a mutation. For a mutation to become a common characteristic of a population a considerable period of time is required. In the first place, the person possessing the mutant trait must produce offspring, who also must survive and breed. It is only after about ten or twenty generations, a period of four hundred years or more, that the trait may begin to spread through the population rapidly. In the early

[1] H. J. MULLER, "FURTHER CHANGES IN THE WHITE-EYE SERIES OF DROSOPHILA AND THEIR BEARING ON THE MANNER OF OCCURRENCE OF MUTATION," JOURNAL OF EXPERIMENTAL ZOOLOGY, 31:443–73, 1920.

hunting cultures, where the hazards of life were great, the chance of a person with a mutation surviving to pass it on to offspring was even less than it is now. Since many mutations are defects they are a disadvantage to survival, further cutting down the number which will be spread. The fact that many mutations are recessive characters, only appearing as a bodily characteristic when two individuals carrying the same trait mate, is another deterrent to the rapid spread of mutation.

In smaller communities, where there is vastly more intermarriage of kin than there is in our large cities, a mutation may become established much more quickly. In a large, mobile city like New York the spread of a mutation to a significant proportion of the population would require many centuries.

The infrequency of mutation. Since heredity is seen to be a relatively stable phenomenon, mutations must be rare. In *drosophila melanogaster* only a few hundred mutations have been observed, many of them duplicates, in thousands of characteristics examined, in the course of millions of matings. In man, whose life span is so much longer, it would appear that mutations, particularly non-defective ones, have been few in historic time.

That mutations have occurred in man is evident from the changes in size of brain case. The differentiations of mankind into races also indicate the occurrence of mutations some time in the history of the species. But for practical purposes one can look on man today as almost stationary. It is quite probable that there has been little or no biological evolution of man since the recession of the last glacier from northern Europe, ten to fifteen thousand years ago.

The significance of this rarity of mutation in man is the fact that it means comparative stability for the species.[1] Changes must be measured in time units of millennia. The chances of breeding a race of supermen quickly, as envisioned by the eugenists, novelists, and other romanticists under the hypnotic spell of early Darwinism, are nil.

The great growth of civilization during the past two thousand years, then, cannot be traced to any biological evolution of racial stock. The explanation of so spectacular a growth must be sought in the processes of cultural rather than of biological growth. While man's inherited intelligence may not have changed during this period of time, his ability to use it in certain ways has been developed through education. Muta-

[1] HORATIO H. NEWMAN, EVOLUTION, GENETICS AND EUGENICS (Chicago: University of Chicago Press, 1932, third edition), p. 447.

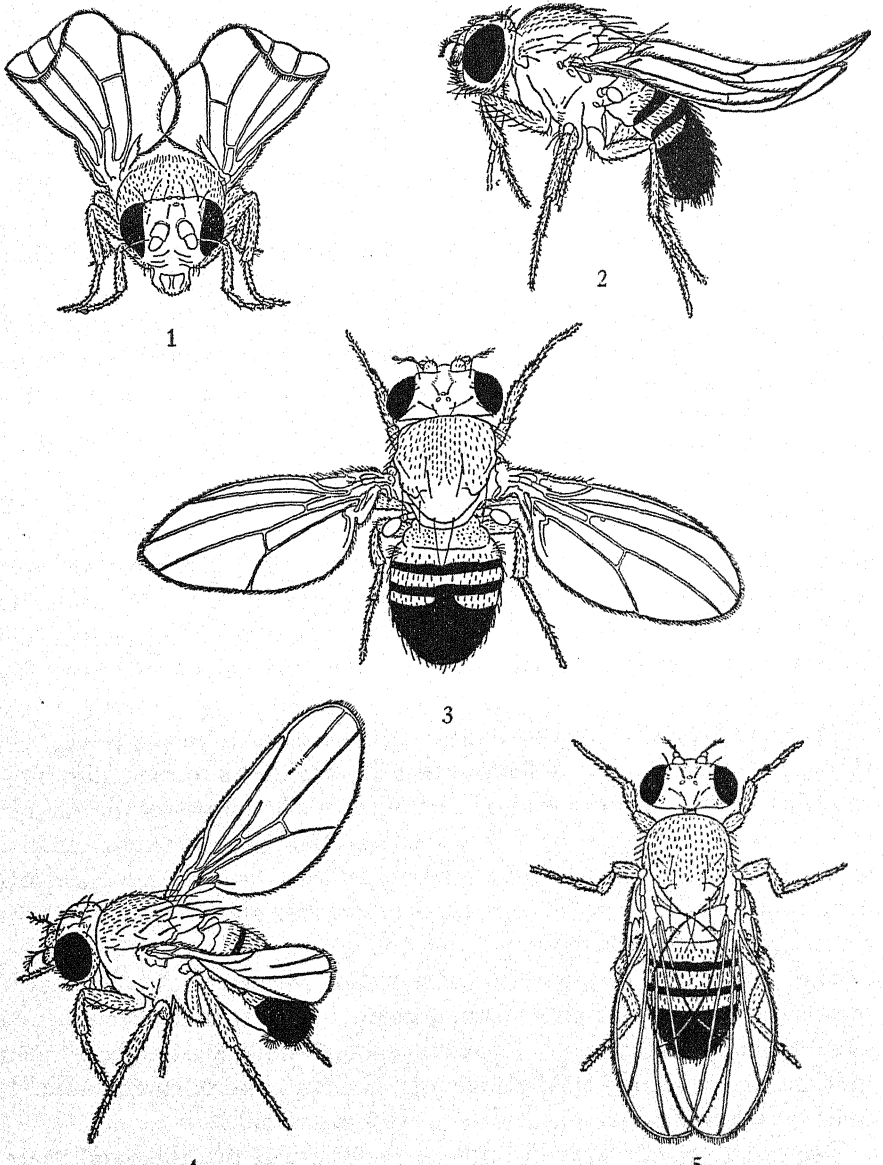


FIGURE 15. MUTATIONS IN THE FRUIT FLY

1. Curled wing, front view. 2. Ski wings (simplex). 3. Spread wings. 4. Tilt wings — note break in third-longitudinal vein. 5. Normal form.

Many years of research by numerous investigators have resulted in the discovery of a few mutants, such as those shown above, in drosophila melanogaster, and in locating the genes carrying the mutant characters. Due to obvious difficulties no such work has been done on human mutations and the genes of man. From C. B. BRIDGES *and* T. H. MORGAN, THE THIRD-CHROMOSOME GROUP OF MUTANT CHARACTERS OF DROSOPHILA MELANOGASTER *(Carnegie Institution of Washington, 1923), p. 105.*

tion in the genes has undoubtedly been of great importance in the development of man over vast stretches of time, but for the short run changes, both biological and cultural, we must look to other factors.[1]

SELECTION

Natural selection. In the foregoing discussion of mutations it was noted that many mutations are in the nature of defects and are not an advantage to the species. On these Nature tends to exercise a natural selection by producing death before offspring can be produced.[2] Thus a fly with a mutation of a very short wing could not survive. Mutations in certain directions are an advantage to the survival of the species and hence tend to be favored in the process of natural selection. The giraffe with a long neck has an advantage in securing food, hence a mutation in this direction is not weeded out by natural selection.

Another process of natural selection is the choice of mates. If males prefer a certain type of female, that type tends to be selected for mating and for producing offspring.[3] Thus peasants tend to prefer strongly built women who can work hard and produce strong, healthy children. Through selective mating over a long period of time a sturdy group is produced.

In man, defective eyesight and bad teeth must have been a great handicap in the hunting life. A keen eye is a great asset in hunting wild game, detecting signs of their presence, spotting them at a distance, and in anticipating movements in close range combat. The Eskimo use their teeth in preparing skins and food, as well as in eating. Under more primitive conditions the individuals with the best eyes, ears and teeth tend to survive. The good teeth, ears and eyesight that we have today may rest in part on the fact that Nature tended for thousands of years to kill off those that were defective.

It must not be assumed, however, that Nature always selects from one end of the normal probability curve. Frequently it is the average type that tends to survive, while the extremes are cut off. One evening after a violent wind and rain storm, Dr. Bumpus,[4] of the American Museum

[1] This point is developed more fully in Chapter XXIV: "The Growth of Culture."

[2] For a fuller discussion the student is referred to E. BAUER, F. FISCHER, and F. LENZ, HUMAN HEREDITY (New York: The Macmillan Company, 1931), chap. III, "Influence of Variation upon the Composition of a People: Effects of Selection," pp. 100–08.

[3] S. J. HOLMES, HUMAN GENETICS AND ITS SOCIAL IMPORT, chap. XV, "Choice in Mating," pp. 188–95.

[4] H. C. BUMPUS, "THE ELIMINATION OF THE UNFIT," in BIOLOGICAL LECTURES (from the Marine Biological Laboratory, Boston, 1899), pp. 209–26.

of Natural History, picked up several hundred sparrows that had been washed out of their nests. He discovered, after weighing and measuring the wing stretch of all the birds (both those that were revived and those that died), the interesting fact that a larger proportion of the very large and very small birds were killed, and that the survivors were drawn in larger proportions from those at the center of the bell-shaped curve.[1]

Animals in the wild state experience a more rigid selection than do domesticated ones. Hence more mutations in the domesticated animals should be able to survive. This is found to be true. There is a much greater variety of domesticated dogs than there is of wolves. Domestication, with its more abundant food supply and protection against enemies, provides the basis for a more generous survival. The long hair of women would operate against their survival in the wild state. Few wild animals have manes so long.

Advanced civilization also softens the rigors of natural selection for man. Oculists, dentists, and physicians help more men to survive. It is difficult to see how feeble-minded persons could survive under primitive hunting conditions, but modern culture takes care of them and aids their survival. While medical science has done much to combat the rigorous selection of disease, still a great toll is taken every year. At the time of the World War, in the neighborhood of 350,000 more Americans were killed by influenza than were killed in battle.[2]

Artificial selection and eugenics. Man-of-War was one of the greatest race horses of all time. His sire, Fair Play, was also a great racer, and his son, War Admiral, was the outstanding racer of 1938. Artificial selection and breeding can produce amazing results. The extraordinary results obtained by breeders, such as a milch cow that produces 42,000 pounds of milk a year (or about 19,500 quarts), are obtained under highly artificial conditions, in a remarkably short time. Such improvements from mutations would have taken many centuries. The question naturally arises: Cannot such results be obtained with man?

Breeding better men, however, is a much more difficult feat than breeding better horses. It is not possible to dictate who should mate whom. Even if this were possible, there is no unanimity on the point as to what specific qualities are worth breeding for. The militarist would

[1] The question of how social pressure affects extreme variants from the group average is considered in Chapter IX: "Group Life."

[2] LOUIS I. DUBLIN and ALFRED J. LOTKA, TWENTY-FIVE YEARS OF HEALTH PROGRESS (New York: Metropolitan Life Insurance Company, 1937), p. 127, gives estimates of the number who died from influenza.

cast his vote for strong men for soldiers, the teacher would prefer breeding for superior mental ability, while the preacher would stress the need for character. Hence a positive effective program of some scope in eugenics does not appear feasible at the present time.[1]

The elimination of the unfit by preventing them from procreating has better prospects for success. Clearly marked cases of feeble-mindedness can be sterilized, or segregated and prevented from having children. Such a plan, however, would only reduce the amount of mental defect in future generations by a small fraction, since mental defects are inherited as recessive characters.[2] About eleven per cent of the feeble-minded in any generation are estimated, on the assumption of random mating, to come from the mating of persons carrying in their germ cells the character for feeble-mindedness. Thus it is seen that while the first reduction by preventing the mating of feeble-minded would be large, succeeding reductions would be very small. Many normal people may bear defective children. It is estimated that, if the proportion of feeble-minded in the population is one per thousand, to decrease that proportion to one per ten thousand would require about 68 generations, or two to three thousand years. There is also, of course, the very important question of determining which undesirable qualities are inherited and which are the result of the environment. Science is by no means agreed on the point at the present time. The hereditary factor may be very small in most kinds of insanity and is undoubtedly slight in most kinds of crime. Some argue that the poor are less well equipped mentally than the rich, but this point is yet to be proved. Until such time as more facts covering these points are known, to follow rigid eugenists' policies might work grave injustices on many people.

INTERMIXTURE

In the previous sections of this chapter, it has been shown that the bodily structure of a people may be affected by large variations called mutations, and by the selection of small variations within the normal range. Structure may also be influenced and modified by intermixture.

Mechanism of intermixture. Thanks to the work of Gregor Mendel and Thomas Hunt Morgan,[3] the mechanism by which intermixture takes place is now well known. If a male with brown eyes, determined by

[1] H. S. JENNINGS, THE BIOLOGICAL BASIS OF HUMAN NATURE, chap. IX, "Biological Fallacies and Human Affairs"; chap. X, "What Can We Hope from Eugenics?"

[2] R. A. FISHER, "ELIMINATION OF MENTAL DEFECT," THE JOURNAL OF HEREDITY, 18:529–31, 1927.

[3] See H. S. JENNINGS, *op. cit.*, and T. H. MORGAN, *op. cit.*

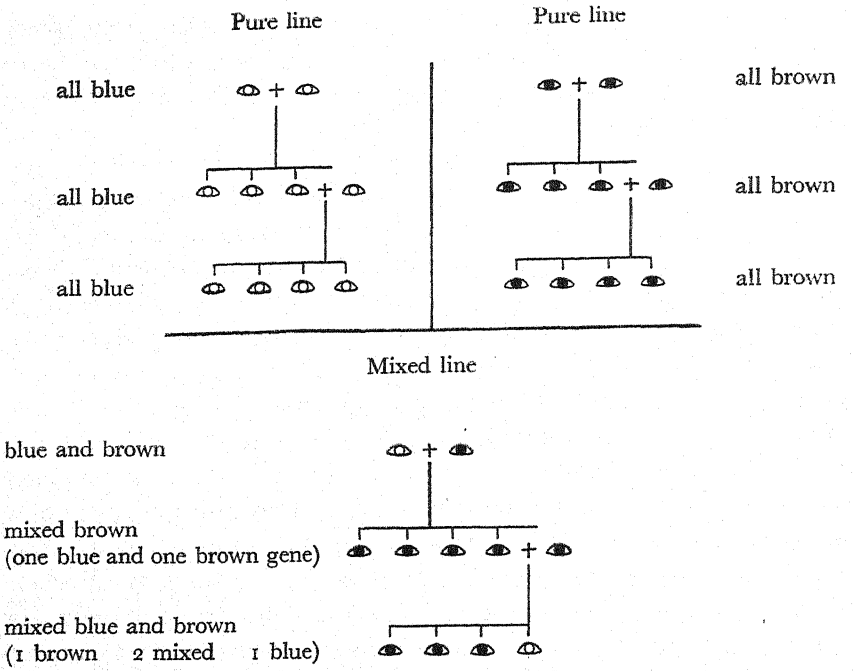


FIGURE 16. PURE AND MIXED FAMILY LINES IN EYE COLOR

When pure blue-eyed or brown-eyed parents mate, all children have the same color of eyes as their parents. There is no variation from type. But when a blue-eyed person marries a brown-eyed mate, the children have a mixture of brown and blue genes even though their eyes are brown. Races are not pure lines, but consist of very large numbers of mixed family lines in a great variety of traits. Race mixture increases the mixture of family lines.

gene *GG*, unites with a female carrying a gene *gg*, for blue eyes, the offspring will have brown eyes which appear like the father's, but which are a result of a combination of the gene for brown and the gene for blue eyes, i.e. *Gg*. This appearance of brown eyes is due to the fact that brown eyes are dominant over blue and only when there are two of the recessive genes for blue eyes, *gg*, present in the chromosomes will the individual have blue eyes. But when two individuals, each carrying genes with factors *Gg*, mate, the offspring appear on the average in the proportions *GG*, *Gg*, *Gg*, and *gg*; that is, one pure brown-eyed offspring, two mixed brown-eyed, and one pure blue-eyed. There is no fusion of brown and blue in the genes themselves. Intermixture, then, is simply a combination of different factors in the genes, without the creation of a new gene.

If two individuals who had exactly the same genes mated, there would be no variations between the parents and the offspring. The children would be merely carbon copies of their parents. Thus if a person with a gene, *GG*, for brown eyes, were to mate with a person carrying the same gene, *GG*, for brown eyes, there would be no blue-eyed offspring. Strains such as these have been developed in wheat by experimenters who have weeded out all those with genes for divergent types. Thus genotypes, as they are called, have been developed.

Such a situation, however, does not exist in man. Pure races, or strains, do not exist, though many persons talk as if they did. Most matings produce an intermixture of many traits. Parents who mate may carry more than one gene that is different. This is commonly the case, so that eye color, hair form, head shape, and the like, may all be the resultants of intermixture. Thus a great deal of variation is produced. Family lines with different genes intermarry frequently, so that the human species represents much intermixture of family strains. Races are then a mixture of a great many family strains. They can be separated on broad lines into several main groups of races, but there is much overlapping and frequent intermixture. These crossings of various family and racial strains introduce much variation into the human family. The more widely divergent the parent lines, the more conspicuous is the intermixture. The union of, let us say, Chinese and Negroes illustrates this.

Desirability of intermixture. The question of whether intermixture is harmful or desirable is open to considerable discussion.[1] The answer depends largely on the ends desired and the usefulness of the trait concerned. The mule is considered in many ways a superior farming animal, hence the intermixture would be considered desirable. In the case of human intermixtures superiority or inferiority is so much a result of social valuation and of opportunity, that it is unwise to attribute status to heredity until the contribution of the latter is definitely proved. The mulatto in southern cities is more highly valued socially among both whites and Negroes than is the black Negro, and is given more opportunities for success.[2] In view of this fact, the greater success of the mulatto should not, at least yet, be attributed to the hereditary advantages of intermixture.

[1] FRANZ BOAS *et al.*, GENERAL ANTHROPOLOGY (Boston: D. C. Heath and Company, 1938), chap. III, "Race," pp. 95–123.

[2] E. B. REUTER, THE MULATTO IN THE UNITED STATES (Boston: R. G. Badger, 1918).

ENVIRONMENTAL FACTORS IN VARIABILITY

Investigation has shown that a group of Harvard students exceeded the stature of their fathers by an average of one and one-third inches.[1] This increase in size was not due to mutation or to selection. Heredity played no part in the change. The result was accomplished by environmental influences. Were the environment changed back, the offspring of these Harvard men would revert to the stature of their predecessors. The stature of man has been changed a good deal during the historical period because of environmental influences. The armor worn by knights in the Middle Ages is too small for modern man. Various observations in many countries bear out these conclusions. The increase in stature is too widespread, over a short period of time, to be accounted for by selection or by mutation. Two factors are probably responsible for much of the increase: better feeding, and the reduction of the diseases of infancy and early childhood.

Influence of improved knowledge of diet and medicine. Scientific knowledge of vitamins, minerals, and other chemical components of the food we eat has improved the quality of our food. Greater accessibility of food due to commerce, canning, refrigeration and increased income has increased the regularity of consumption. Studies[2] several years ago showed that the school children in prosperous neighborhoods were taller and heavier than those in the poorer sections of the city.

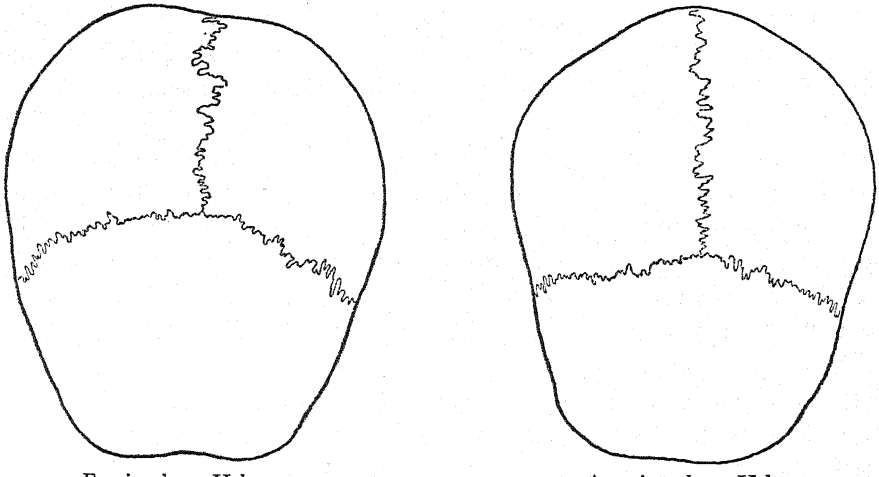
Formerly it was considered the normal right of every child to have measles, mumps, whooping cough and chicken pox. Now they are more of a rarity, and the other diseases of infancy have similarly been brought under control. The conquest of these diseases has great significance for the growth of children.

Ordinarily the varying influences of environment on the biological structure are slight. A blacksmith or a baseball pitcher may use his right arm a great deal more than the left, but the resulting difference in size is slight. Many of the minor variations in bodily characteristics are probably due to environmental influences. The East European Jews migrating to the United States have a cephalic index of .830 (the ratio of the breadth of the head to the length), while that of their children is only .814 and that of their grandchildren, .787.[3] The diversification of

[1] GORDON T. BOWLES, NEW TYPES OF OLD AMERICANS AT HARVARD AND AT EASTERN WOMEN'S COLLEGES (Cambridge: Harvard University Press, 1932), p. 50.

[2] JAMES S. MCLESTER, "NUTRITION AND THE FUTURE OF MAN," JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, 105:2144–47, June, 1935.

[3] FRANZ BOAS, CHANGES IN THE BODILY FORM OF DESCENDANTS OF IMMIGRANTS (New York: Columbia University Press, 1912).



Foreign-born Hebrew

American-born Hebrew
(2d generation)

FIGURE 17. CHANGE IN THE CEPHALIC INDEX

Head form, which comes to maturity early, was once thought to be the best criterion of race; but the above illustration shows how, like other body characteristics, it may be modified by the environment. The cephalic index of these foreign-born Jewish immigrants to New York is 83; that of their American-born grandchildren is 78.7 The cephalic index is the ratio of the breadth of the cranium to the length, usually expressed by a number denoting hundredths of the length. Data from BOAS, THE MIND OF PRIMITIVE MAN, *p. 94.*

the American Indian as to stature, pigmentation, and cephalic index may be due less to mutation and selection than to the influences of environments varying in heat, moisture, altitude and food supply.

It is thus seen that the environment can modify the structure of the individual, and the physical well-being of the race can be improved without reference to selection or to heredity. But the favorable environment must be maintained for each successive generation if the improved trait is to be retained.

Inheritance of acquired characteristics. The theory that characteristics acquired by an individual during his lifetime are passed on to his offspring was very popular at one time.[1] It was thought that the giraffe had a long neck because he stretched it to reach farther for food and that the effect of this stretching was passed on by heredity to his offspring. If this were true, one might also expect the children of the man with a wooden leg to be born with wooden legs, which is obviously ridiculous.

[1] For a discussion of these early views see T. H. MORGAN, "ARE ACQUIRED CHARACTERS INHERITED?" THE YALE REVIEW, 13:712–29, July, 1924.

It was seen in preceding sections that such changes as the lengthening of the neck of the giraffe came about through mutations in the germ cell and not through the inheritance of acquired characteristics.

This point is a very important one for sociologists. When the Lamarckian theory of the inheritance of acquired characters was accepted, the future was painted in rosy colors. According to this view, though the human species would be less stable than it now is, the possibilities of improvement were tremendously great. Children of "educated" parents could start where their parents left off and soon the gap between the illiterate peoples and the educated ones would become a chasm. This theory was pretty well demolished by the work of Weismann in showing that the germ cells were well protected against bodily influences. The infrequency of mutations is an indication of how complete this protection is. Thus it will be seen that, while the physical well-being of the race may be improved by proper feeding and care, and the ability to use inherited intelligence is increased by education, these advances cannot be passed on by the germ plasm. The sons and daughters of Ph.D.s are no brighter at birth, because of the training of their parents. Although the children may benefit by association with their learned parents, the favorable environment must be retained for each generation of offspring, if the improvement is to be retained.

Influences of cultural environment. Important as are the variations in physical structure brought about by environment, more important still to sociologists are those variations in the form of mental and personality differences brought about by the cultural environment. In these fields we find as great human variability as we do in the biological realm. One man is a law-abiding citizen, another is a criminal; one a militarist, another a pacifist. It is difficult to indicate any genetic basis for these variations, and in many cases it is almost impossible in the light of present knowledge to assess properly the relative rôles of heredity and environment in producing these differences. This problem is a highly important one to sociologists, for if they are to understand and perhaps eventually be able to predict various aspects of human variability, they must have a thorough knowledge of the causes involved. A knowledge of the various biological factors, as well as social factors, causing human variability is of vital importance. The paragraphs below undertake to compare the rôles of heredity and environment in the production of a number of instances of human variability.

Relative Influence of Heredity and Environment

THE HEREDITY-ENVIRONMENT CONTROVERSY

A long-standing and acrimonious controversy has raged around the answer to the question: Which is the more important, heredity or environment? Since the time of Aristotle, who viewed heredity as all-important, each side has been championed by extremists. In recent years William McDougall,[1] the chief exponent of the instinct doctrine, has been one of the main upholders of the side of heredity. This view holds, roughly, that man is born with certain definite and fixed behavior drives, which work themselves out into the kinds of human beings and societies which exist. This leaves little if any room for the influence of environment. On the other side are the extreme environmentalists, represented by John Watson, who discount almost entirely the idea that genetic factors play a creative rôle in the organization of human personality. "Give me," writes Watson,[2] "a dozen healthy infants, well-formed, and my own specified world to bring them up in, and I'll guarantee to take any one of them at random and train him to become any type of specialist I might select — doctor, lawyer, artist, merchant, chief, and yes, even beggar man and thief, regardless of his talents, penchants, tendencies, abilities, vocations, and race of his ancestors." Such a view is obviously extreme. Had someone challenged Watson to produce a musical artist out of a child who was tone-deaf, he would indeed have required his "own specified world" for this purpose, for it could not be done in this one.

INTERDEPENDENCE OF HEREDITY AND ENVIRONMENT

These extremists on both sides have obscured, rather than illuminated, the problem.[3] By focusing attention on one factor to the exclusion of the other they have concealed the central fact that the two factors constitute a unity. Neither can exist without the other. To speak of nurture apart from something that is nurtured obviously makes no sense. It is equally futile to think of genetic factors functioning in a vacuum.

The environment in which the genes develop is of the greatest significance in determining what traits will be produced. Fruit flies, when

[1] AN INTRODUCTION TO SOCIAL PSYCHOLOGY (Boston: J. W. Luce and Company, 1923, 16th ed.).

[2] BEHAVIORISM (New York: W. W. Norton and Company, 1925), p. 82.

[3] For an illuminating discussion of the subject, see L. HOGBEN, NATURE AND NURTURE (New York: W. W. Norton and Company, 1933).

hatched under very moist conditions, show unusual abdominal bands, which are not inherited by the offspring if brought up in dry conditions. Similarly the marine fish, *Fundulus*, usually has two eyes. When, however, the egg is hatched in sea water that has been treated with magnesium salts, the fish has only one eye.[1] Again, when these unusual fish reproduce under normal conditions the usual traits reappear, indicating that the genes have not been affected. The environment cannot call out a trait for which there is no gene, but it can determine which form, out of a number of possible forms, the trait will take. Environment and heredity must, then, be considered interdependent.

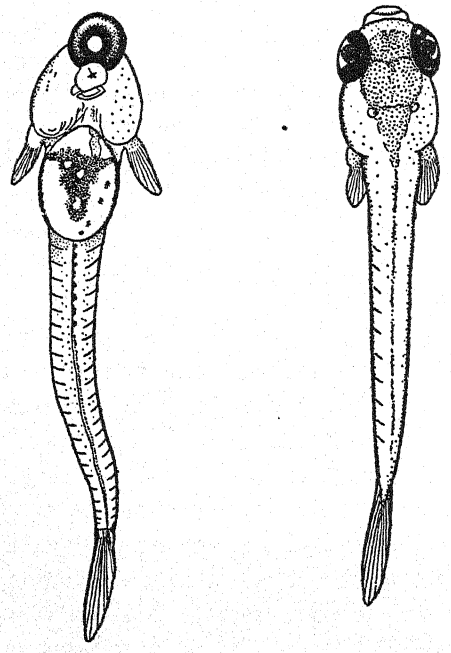


FIGURE 18. ENVIRONMENTAL EFFECTS ON THE FUNDULUS

One-eyed cyclops fish produced from normal eggs developed in a modified sea-water environment. The right specimen is a normal two-eyed fish for comparison. The eggs of the one-eyed fish, if developed in the normal sea-water environment, revert to the two-eyed variety. Adapted from drawing in THE PHYSICAL BASIS OF PERSONALITY, *by* C. R. STOCKARD (*New York: W. W. Norton and Company, 1931*).

It is also important to note that the heredity component does not have the same significance for all traits. While eye color is rather rigidly fixed by the genes, the same is not true for other physical traits such as head form, height and weight. In the twenty years 1911–31, the average height and weight of boys of twelve years of age attending elementary schools in Leeds increased from 4 feet 4 inches and 63.5 pounds to 4 feet 7 inches and 74.4 pounds respectively.[2] The general testimony from women's colleges is that the students of today are bigger than those of a generation

[1] CHARLES R. STOCKARD, THE PHYSICAL BASIS OF PERSONALITY (New York: W. W. Norton and Company, 1931), pp. 106–10.

[2] SIR EDWARD MELLANBY, RECENT ADVANCES IN MEDICAL SCIENCE (Cambridge University Press, 1939), p. 17.

ago.[1] Factors such as personality are even more dependent upon the environment in which the child is nurtured.

Every human being possesses certain traits by virtue of his relation to three groups: his sex, his family, and his race. Which of these traits are chiefly the result of heredity and which are more influenced by environment? The following sections take up several of the more important aspects of human variability and seek to assign certain weights to the rôles of heredity and environment in determining them.

Sex Differences

Many social distinctions are made between men and women based on the fact of their difference in sex. Some of these, such as differences in dress, rest almost entirely on the necessity of identifying the members of each sex. Many distinctions, however, rest on the belief that because women are physiologically different from men, they must also be psychologically different. The division of labor along sex lines is in part grounded on this assumption. For years in this country women were not allowed to teach school on the theory that they were mentally inferior to men. This idea is still current among many. In determining the personnel of a jury in certain types of cases, lawyers act on the popular belief that women are more emotional than men. It is a matter, therefore, of great practical as well as theoretical importance for the reader to consider the testimony of science on the question: Are there inborn psychological differences between the sexes? [2]

Sex and Intelligence

Support, in the form of scientific evidence, for the popular view that men have more general intelligence than women is entirely lacking. It must be pointed out in this connection, however, that none of the present-day tests that are used to measure "intelligence" really measure the native capacity uninfluenced by social experience and training. They rather tend to measure the acquisition of knowledge in a particular environment. From these tests, no doubt, something of the innate ability may be judged, but until better tests are devised for measuring

[1] G. T. Bowles, *op. cit.*

[2] For a survey of the literature on this subject the student is referred to Catherine Cox Miles, "sex in social psychology," in Carl Murchison (ed.), A handbook of social psychology (Worcester: Clark University Press, 1935), chap. 16, pp. 683–797.

inherited capacity alone, any conclusions as to the differences in mentality that are due to sex differences, rather than to the training received, must be tentative.

The numerous studies which have been made of I.Q. (intelligence quotient) in relation to sex fail to establish the fact of mental superiority on the part of either sex. Males in our culture have been shown to be more variable than females, there being twice as many males as females with I.Q.'s over 160 and under 40 in large samples of school children who have been tested.[1] It is highly probable that, if mental differences between the sexes do exist, they are not in general intelligence, but rather in specific mental abilities. It has been found that girls do better on language tests, while boys do better in mathematics. These differences, of course, may be the result of training rather than of genetic differences. Attempts to control the environmental factor by studying the behavior of babies have not shown any significant mental differences between the sexes.[2] The problem of whether the two sexes are inherently different in mentality is still an unsettled one.

SEX AND PERSONALITY

There is an even more popular presumption that women must be emotionally different from men because they are constitutionally different. Both temperament and emotions are known to be influenced by the functioning of the endocrine glands, in which the sexes do differ somewhat. The theory seems plausible enough, but the evidence is not decisive. In the first place, it must be remembered that tests of emotionality and personality are still comparatively crude and inaccurate. There are no tests which even make a pretense of measuring inherited personality traits as separated from environment and training.

An attempt has been made to surmount the environmental difficulties by testing infants, but to date there are no clues as to what, if any, the inherited sex differences may be. This may be due to the fact that many characteristics may not be visibly present at birth, but come into view with maturation. Studies of animals suggest that males are genetically more aggressive than females, although the evidence is not conclusive.

Lacking accurate measurements of the characters in question, we may

[1] Q. McNEMAR and L. M. TERMAN, "SEX DIFFERENCES IN VARIATIONAL TENDENCY," GENETIC PSYCHOLOGY MONOGRAPH, 18, no. 1, 1936.

[2] O. C. IRWIN, "MOTILITY IN NEWBORN INFANTS," PROCEEDINGS OF THE IOWA ACADEMY OF SCIENCE, 39:243, 1932.

gain indirect evidence on the point from a study of how the sexes behave in various cultures. It is found that, while there may be inherent emotional differences between men and women, culture may distort and change the expression of these differences. With us, women are thought to be ministering angels, but among the Iroquois they were sadistic torturers. In our society expenditures for cosmetics are made largely by females, but in many cultures most of the primping is done by the males. Indeed the personalities of the sexes may change even in a given culture, with the passage of time. The modern American girl is greatly different from her predecessors. The obedient, long-suffering, delicate lady of the nineteenth century is as dead as the dodo.

In no two societies are the two sexes treated and trained exactly alike. From infancy boys and girls usually are given different toys and kinds of play, different work, different schooling, different incentives and ideals, all determined by the prevailing culture. Even our nursery rhymes reflect these differences.

> Sugars and spice and all things nice,
> That's what little girls are made of.
> Snips and snails and puppy dogs' tails,
> That's what little boys are made of.

When boys are taught to be aggressive and to scorn the so-called "feminine" pursuits, it is small wonder that four times as many women as men say they "like to decorate a room with flowers," while the reverse is true for "repairing electrical wiring." [1] So general is this cleavage of behavior in our society that we are tempted to believe that the activities approved for each sex are the results of inborn tendencies.

Ethnologists disturb this interpretation, however, by showing that the activities and the personality traits of each sex are not everywhere the same. Margaret Mead [2] has pointed this out clearly in her description of the sexes in three New Guinea societies not far removed from one another. In the Arapesh society men and women were alike in their personality traits of passivity and meekness. In Mundugumor both men and women, on the contrary, were intensively aggressive; while among the Tchambuli the men were artistic and "effeminate," the

[1] E. K. STRONG, "INTERESTS OF MEN AND WOMEN," JOURNAL OF SOCIAL PSYCHOLOGY, 7:49–67, February, 1936.

[2] MARGARET MEAD, SEX AND TEMPERAMENT IN THREE PRIMITIVE SOCIETIES (New York: W. W. Morrow and Company, 1935).

women practical, domineering and aggressive. Such evidence supports the hypothesis that, while there may be inborn differences between men and women, culture plays a very important rôle in fashioning the psychological traits that men and women show at any given time.

Individual-Family Differences

That individuals differ in mental ability is a commonplace observation. Some are very bright, others are very dull, while the great mass of humanity ranges somewhere in the middle. When the results of the so-called intelligence tests are scaled they tend to follow the normal probability curve, as do so many other biological data.[1] It is generally accepted however that the present day intelligence tests measure not innate capacity (as intelligence strictly speaking is defined), but a mixture of innate intelligence and acquired knowledge. The tests measure natural endowment after it has been acted upon by nurture. That there may be no misunderstanding, in the following paragraphs the rating achieved on such tests will be referred to as test-intelligence.

The problem of differences in test-intelligence

The problem, then, which interests the sociologist is: how shall we account for these differences in test-intelligence? That much is due to heredity cannot be denied. No environment has been discovered that will change a moron into a genius. But there is also great likelihood that many individuals with a high degree of innate capacity may not rank high in test-intelligence because of limitations in their environment. Hence it is of utmost interest to assess the rôle of the environment in producing test-intelligence.

Studies of identical twins. This problem has been attacked in several ways by the psychologists. Probably the most interesting and enlightening have been the studies made of identical twins who have been separated in infancy and reared apart.[2] These studies have the advantage of keeping the hereditary factor constant, while the environmental factor is varied. Of the ten pairs of twins studied, the average intra-pair difference in test-intelligence was 7.7 I.Q. points, as compared

[1] For a discussion of I.Q. tests see, Gladys C. Schwesinger, heredity and environment, chap. 1.

[2] H. H. Newman, F. N. Freeman, and K. J. Holzinger, twins : a study of heredity and environment (Chicago: University of Chicago Press, 1937).

with 5.3 for identical twins reared together. While it is seen that on the average the differences brought about by the changed environment were not great, it must be remembered that the differences in environment may not have been very large. A more adequate measure of environmental differences is needed before accurate conclusions can be drawn.

Of special interest is the case of Mary and Mabel, identical twins separated in infancy and brought up in rather diverse environments.[1] Mabel was reared on the farm, and had a school training that carried her through only six weeks of high school, while Mary was brought up in the city and finished high school. The results shown by the tests given them are presented below. The rather wide difference found in this one

TABLE 3. COMPARATIVE INTELLIGENCE TEST SCORES OF A PAIR OF IDENTICAL TWINS REARED APART

Test	Score in terms of	Mabel	Mary	Difference
Stanford-Achievement..	Educ. age	14–5	17–3	2 yrs. 10 mo.
Stanford-Binet.....	I.Q.	88.5	106.2	17.7 points
Thurstone Psych.....	Rank	2%ile	39%ile	
International.....	Raw score	94	102	8 points
Otis S.A.....	Raw score	30	41	11 points
	Otis I.Q.	91	111	20 points

case, 17.7 points, on the Stanford-Binet I.Q. test is of special significance. In this connection it must be remembered, however, it has been found that, on re-testing, an individual on the average differs "from himself" by 5 or 6 I.Q. points, and under especially advantageous conditions his scores may vary by 15 or 20 points.[2] The differences found, nevertheless, show that environment may play an important part in determining test-intelligence. Although other identical twins separated in early infancy have been found to differ less widely, one case of such wide difference is enough to show that, with the same heredity, widely different environments may produce differences in intelligence.

Influence of foster home placement. Another approach to the problem has been the studies made of changes in I.Q. when children are placed in foster homes. It has been found that an improvement of between 10 and 30 I.Q. points is possible because of an improved environment

[1] H. H. NEWMAN, "MENTAL AND PHYSICAL TRAITS OF IDENTICAL TWINS REARED APART," JOURNAL OF HEREDITY, 23:2–18, 1932.

[2] GLADYS C. SCHWESINGER, *op. cit.*, p. 223.

in the foster home.[1] The earlier the change is made the more likelihood there is of changing the test-intelligence of the child, and the greatest differences have been found among those who in the favorable environment rank fairly high. The bright child who may be held back by lack of a favorable environment may develop to his full capacity if placed where he has a good opportunity to learn. The effect of the type of education which enables the very bright child to develop, seems to be to accentuate mental differences, to increase the variability among human beings, rather than to act as a "leveling off" process.

Studies of institutionalized children. Much less spectacular have been the results from the studies which varied the heredity, holding the environment constant. These studies have been made by testing children brought up in institutions such as orphanages, where the environment is said to be fairly constant for all. If environment contributes a large part to test-intelligence, then children in such institutions should evidence less variability in test-intelligence than do children brought up in diverse environments. Comparisons of the variability in test results, however, do not indicate any closer resemblances among these orphan children than among unrelated children brought up in varied environments.[2] It should be remembered that some children are placed in orphanages at a later age than others, and their environments before coming to the institution are different. Also the environment in such an institution is not, obviously, perfectly constant for all the individuals.

Intelligence of children in isolated regions. Investigations of children in remote, isolated regions are also of interest to the sociologist. One such is a study by Ludeman and McAnelly [3] of children in a very limited communal settlement, cut off from practically all contact with the outside world. They had no access to telephones, movies, or newspapers. When tested, the children in this group averaged 71 I.Q., a quite low rating; yet the investigators believed that, in the light of evidence as to the quality of the work done by the people of the community, the congenital intelligence of the children was normal. This is a case, it seems, where the standard tests cannot be used. They assume a certain uniformity of environment, and it is dangerous to draw conclusions from such tests

[1] B. S. BURKE, in TWENTY-SEVENTH YEARBOOK OF THE NATIONAL SOCIETY FOR THE STUDY OF EDUCATION, Part I: 219–316, 1928.

[2] G. H. HILDRETH, "THE RESEMBLANCE OF SIBLINGS IN INTELLIGENCE AND ACHIEVEMENT," TEACHERS COLLEGE CONTRIBUTIONS TO EDUCATION, no. 186, pp. 65 ff., 1925.

[3] "INTELLIGENCE OF COLONY PEOPLE," JOURNAL OF EDUCATIONAL PSYCHOLOGY, 21:612–15, 1930.

as to the intelligence of people in extremely different environments.

The feeble-minded. The hereditary factor in intelligence shows up most plainly among the mentally handicapped, or feeble-minded. The lowest level of feeble-minded persons, the idiots, always remain utterly helpless. By far the largest number of the mental defectives are the borderline or dull cases; many city school systems have separate classes for them. It is difficult to measure the exact number of feeble-minded in the United States. There are about 100,000 in institutions, but not all the mentally handicapped are institutionalized.[1] Some students estimate that about 1 in 250 of the general population is mentally handicapped, but this is probably a rather high figure.

It must not be thought that all feeble-mindedness is inherited. Some children are mentally defective because of injuries to the nervous or glandular systems incurred in early environments. What proportion of mental deficiency may be due to environmental causes, rather than to heredity, cannot be stated with accuracy, but the figure is probably high.

THE BASES OF VARIATIONS IN SOCIAL STATUS

Individuals differ also in the position they occupy in society. Some are high in command; others are subordinate. Some are rich and others are poor. What determines success in life?

One theory is that success and failure are the reflection of inherited differences in capacity.[2] If this were true, the distribution of successes would be an exact replica of the distribution of mental ability. A brief examination of various success curves shows that this is far from the case. Size of income may be taken as one estimate of what many consider success. The curve for the distribution of income, however, is far different from the normal probability curve of mental ability. The income curve [3] shows the greatest frequency near the end of the lowest classes, with only a very few receiving salaries in the upper brackets. It is a well known social phenomenon that the many have little, and that the few have much. The shape of the curve for income distribution, rather than being a direct result of the distribution of mental ability, is also

[1] The United States Bureau of the Census reports 106,744 persons in institutions for mental defectives and epileptics, or on parole from such institutions in 1934. The number of epileptics included in the above figure is not ascertainable, but it is probably small. United States Department of Commerce, STATISTICAL ABSTRACT OF THE UNITED STATES, 1936 (Washington: Government Printing Office, 1936), p. 70.

[2] SIR FRANCIS GALTON, HEREDITARY GENIUS (New York: D. Appleton and Company, 1870).

[3] See Chapter XIX.

affected by the laws of inheritance, by property rights, and by the social phenomena of power and prestige.

If heredity rather than environment were the determining factor in status, one would also expect that the distribution of ranks in the army would follow a normal probability curve. Instead we find few officers and large numbers of privates. The fighting requirements, rather than inherited ability, seem to dictate the distribution of rank. This is not to suggest that inherited ability has nothing to do with social status and success in life, but rather that both hereditary and environmental factors must be taken into consideration. Any dictatorial force of heredity is likely to show itself at the extreme ends of the normal probability curve. For the great mass of humanity the social factors are more important in determining rank in life.[1]

Race Differences

THE NATURE OF RACE

The concept of race has at times played dramatic rôles in history, leading even to persecutions and wars. Despite the furor it has caused, there is a tremendous amount of ignorance on the subject. The Greeks classified all mankind as either Greek or barbarian, and the Jews pigeonholed everyone as Jew or Gentile. Yet none of these are racial groups. Race has frequently been confused with language, as well as with religion and nationality. There is an Aryan language, but no Aryan race. It is true that a certain people, thousands of years ago, brought the Aryan language into Europe, and for this reason they are sometimes called the Aryan race. But this is a careless usage, for many different racial types, such as the Swedes, Swiss and Spanish, speak Aryan tongues today. The use of a particular language gives no indication of one's race. American Negroes speak the English language, but that does not make them English. Many Germans seem to consider those speaking the Germanic language as members of the "German race," but the German state is composed of two different racial sub-types. The North Germans are more of the Nordic type, whereas the South Germans are Alpines, with round heads, dark hair, and dark eyes.

Culture generally has been confused with race. The fact that the Eskimo and the Magdalenian peoples living in the last ice age in France

[1] For fuller treatment of the factors governing social status, see Chapter XI.

had much the same cultures has led at least one author, Sollas,[1] to argue that they were of the same race. Yet many races may share the same culture, as is true of the Hawaiians, Japanese, and whites in Hawaii; or one race may have two cultures, as is true of the Negro in Africa and in America. Culture must not be confused with race.

The great confusion frequently arising on these points is the result of failure to realize that race is distinctly a biological concept, whereas language and religion are cultural. The term *race* is used to describe the inherited resemblances and differences of large groups of human beings. There are great branches of the human species, just as there are such great divisions among cows, as Jerseys, Guernseys, and Holsteins. Among men, there are the white, yellow and black races.

THE CRITERIA OF RACE

Mankind cannot be classified into races simply by observing either superficial or single physical traits such as color or size. We cannot look at the bodily characteristics and safely assort various peoples into races. If this were done the Ainu of Japan, with their white skin, might erroneously be classified as members of the white race; and the dark Hindus of India might not be classed as Caucasian, which they are. There are several reasons why such simple classifications do not delineate races. Racial resemblances and differences are genetic, not merely somatic. Resemblances among peoples may be due to selection, environmental influences, or interbreeding and not due to resemblances inherent in the germ plasm. Thus some specialized groups of the yellow race such as Hawaiians or Samoans resemble the whites, a different race, in many readily observable characteristics probably as much as they do the American Indians, who are of the same race. If individuals were not subject to influences of selection and environment, classification into races would be simple; but since they are, it is difficult to classify a race into finer sub-divisions. The attempt to subdivide Europeans into Baltic, Alpine and Mediterannean types is not very satisfactory because the differences between the peoples in the European areas are not wide enough when subjected to actual measurement. We do not know how much is due to selection, or how much to intermixture. The cleavage in bodily characters between the Mediterannean Sicilian and the Alpine Swiss is not great, compared to the differences between the Negroes and the whites.

[1] W. T. SOLLAS, ANCIENT HUNTERS AND THEIR MODERN REPRESENTATIVES (London: Macmillan and Company, 1915, second edition), chap. XII, "The Eskimo," pp. 488–521.

In distinguishing races it is extremely difficult, if not impossible, to be certain that the differential characteristics are due to heredity and not in part to environmental modifications as well. Several criteria of race are needed. Such attributes as stature and weight, which can be greatly modified by the environment, are of little value in identifying races. Hair form and eye color, on the other hand, appear to be more stable genetic factors. When anthropometry was first developing, it was thought that head form was the best criterion of race, since the skull approaches its full growth early in life and was thought to be little influenced by the environment. But with the discovery by Boas,[1] referred to previously, that the cephalic index may be materially altered by the environment into which the individual is born, this trait has been abandoned as the principle criterion of race, and now simply takes its place along with a great many other criteria. If, on the basis of these criteria, a group of people diverges greatly from other groups, we call it a separate race. Our concept of the main races must be broad enough to cover the smaller variations which may be occasioned by a particular environment. While there are small variations within a race, a classification of races tends to separate out the broader biological differences found in mankind.

CLASSIFICATION OF RACES

Major racial types. On the basis of the above criteria we may divide the human family into three main races. The Negroes, with their black skin and curly hair are considered a separate race by all writers. They also include the Melanesians, who have a lighter skin and slightly different nose, with the Negro group. The Mongoloid, or yellow race, has lighter skin and straight black hair. In this group are also the American Indians, who migrated to the Americas about ten or fifteen thousand years ago and have become somewhat differentiated from the parent stock. The majority of researchers class the whites as a separate race, but a few tend to consider them an off-shoot of the Mongoloid race, since white people bear resemblances to the possibly ancestral Mongoloid type. The Ainu of Japan and the Australoids seem to be types that overlap with other races. When a group of people remains alone in an isolated region over a long period of time, mutations may occur, and the process of natural selection may cause the new traits to become established in the population. Since races probably originated in this way, it is not surprising that there is

[1] FRANZ BOAS, CHANGES IN THE BODILY FORM OF DESCENDANTS OF IMMIGRANTS.

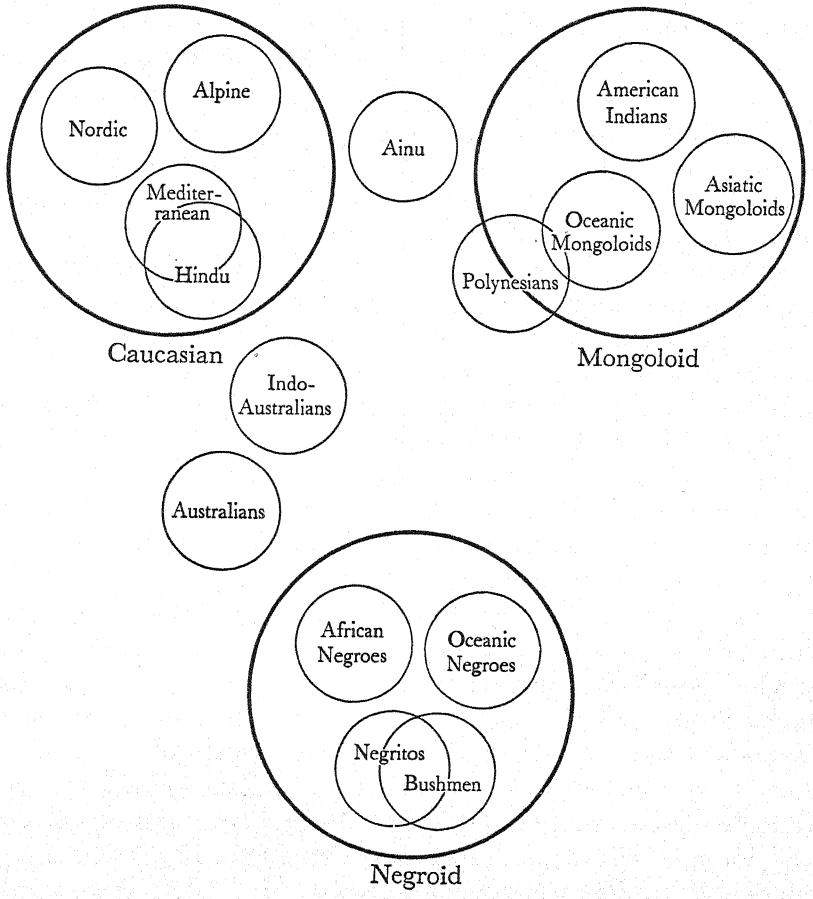


FIGURE 19. RELATIONSHIP OF THE HUMAN RACES

The area of the ring is not related to the size of population of the races, but the distances between the centers of the circles are roughly indicative of the degree of similarity of the races. Taken from A. L. KROEBER, ANTHROPOLOGY (*New York: Harcourt, Brace and Company, 1923*).

some overlapping and that a very simple taxonomy is not possible. Figure 19 shows the various races and their relations to each other.

Sub-races. Each of these great racial divisions of mankind may also be divided into sub-races, though there is considerable disagreement among authorities as to just what these sub-divisions should be. In Europe, the coasts of the Baltic Sea and adjacent territories are the home of the tall, fair-haired, blue-eyed, long-headed type generally called Nordic. Around the rim of the Mediterranean lives a shorter, black-

haired, oval-faced, long-headed type, known as the Mediterranean. In central Europe, like a wedge with its point in Great Britain, is a short, broad-headed people labeled the Alpine type,[1] characterized by wide cheek bones, dark hair and eyes. The Hindus, with their darker skin, but otherwise European characteristics, are also classified as a sub-type of the white race. Each sub-type is a complexity of different family strains. So also are the black and yellow races divided into sub-races.

No pure racial types. These descriptions of the various European sub-types are highly idealized. In any particular country, or region, there is an intermixture of a number of types, making it difficult to draw sharp distinctions. In any particular area there is so much intermixture that the perfect types described above are quite definitely in the minority. We tend to think of Sweden as the home of the tall, blue-eyed, narrow-headed Nordic. But the Nordic type (designated here as those people having a light eye color and light head hair, with a stature over 168 centimetres and a cephalic index under 78) constitutes only about 30 per cent of all the population in Sweden.[2] The truer biological picture, then, is that of a limited number of races comprising great masses of mankind, each of which is made up of a larger number of different family lines, but with specialized adaptations in various localities due to such processes as common environmental influences, selection and inbreeding.

Evolutionary advancement of different races. Great efforts have been put forth by many writers, spurred on, no doubt, by racial pride, to determine the race that has evolved furthest from its anthropoid ancestors. Various claims, not very well substantiated, have been made to show that the white race has evolved furthest. On the average, white people have larger craniums than do Negroes, but there are greater differences within the races than there are between the races. On the other hand, the heads of the Eskimo people are slightly larger than those of the whites. But the Eskimo ratio of size of limbs to body is closer to the anthropoid ratio than is that of the whites or Negroes. Again, the whites are hairier and hence more like the apes than are the other races. The lips of the Negro are more different from those of the apes than are those of any of the other races. This evidence does not justify a conclusion that one race is further removed than another from anthropoid origins.[3]

[1] CARLETON S. COON, THE RACES OF EUROPE (New York: The Macmillan Company, 1939).

[2] H. LUNDBORG and F. J. LINDERS, THE RACIAL CHARACTER OF THE SWEDISH NATION (The Swedish State Institute for Race Biology, Stockholm: Almquist and Wiksell Printing Company, Ltd., 1926), p. 154.

[3] F. BOAS, THE MIND OF PRIMITIVE MAN, pp. 115–16.

RACIAL DIFFERENCES IN MENTALITY

Back of a large part of the present-day interest in race lie assumptions regarding the mental superiority of certain races. Psychologists and sociologists have attacked the question of racial superiority directly by giving mental tests to members of the different races. These tests do not measure inherited mental capacity. They might give some clues, were it not for the fact that they require that the subjects have a uniform background, else the results are not comparable. Such a uniform background is impossible to obtain if we would study races in varying localities and cultures. In the effort to get away from these differences in cultural background, recourse has been had to tests composed of diagrams and pictures; but the subjects are not equally accustomed to using pencils, and perhaps more important, to taking tests at all.

Differences in test-intelligence. Some of the results from testing different races are as follows. Chinese and Japanese do quite well on our tests, having an average score of 99, as compared with 100 for whites. Southern Negroes do less well, while the American Indians (Mongoloids, like the Chinese) do the poorest, averaging only 75.[1] These differences in all probability reflect variations in culture, rather than inherited racial ability. If these tests measured racial differences we should not expect the average scores of the Chinese and the American Indians, members of the same race, to vary so greatly. It has also been found that Negroes educated in the North do much better on the tests than those in the South. Klineberg[2] found that those Negroes who have been in the North but a short time got about the same rating as the Southern Negroes, which suggests that there is no particular selective factor of an intellectual nature involved in Negro migration. He also found a positive correlation between increase in I.Q. and the number of years of schooling in the North. From these studies it will be seen that no claim that one race is mentally superior to another is justified.

Skull capacity and intelligence. Skull capacities have been measured in an effort to show one or another race to be superior. While the Negro's skull capacity on the average is smaller than the white man's, when the distribution curves for skull capacities for both races are plotted on the same scale it is found that there is a great deal of overlapping.[3] There are more

[1] T. R. GARTH, RACE PSYCHOLOGY (New York: McGraw-Hill Book Company, 1931), p. 83.

[2] OTTO KLINEBERG, NEGRO INTELLIGENCE AND SELECTIVE MIGRATION (New York: Columbia University Press, 1935); RACE DIFFERENCES, 1935.

[3] T. WINGATE TODD, "CRANIAL CAPACITY AND LINEAR DIMENSIONS IN WHITE AND NEGRO," AMERICAN JOURNAL OF PHYSICAL ANTHROPOLOGY, 6:97–102, April–June, 1923.

differences within a race than between races. Furthermore, a slight difference in cranial capacity cannot be interpreted as an indication of difference in innate intelligence. Over great ranges, such as from the chimpanzee to man, these differences in skull capacity are undoubtedly significant, but to draw conclusions on the basis of small variations is a dubious practice. No significant correlation in modern man between size of skull and intelligence quotient has been discovered.[1] It would be foolish to select college students on such a basis.

Structure and function. In discussing the important question of racial differences, men are wont to forget the vital fact that structure is inherited, but behavior is not. Anatomy, but not physiological function, is used as the criterion of race. The basic structures that are inherited set limits to functions, but environmental differences, particularly cultural differences, determine how these structures will be used within the limits allowed by heredity. Furthermore, the variability of function is much greater than the variability of structure. The size of lungs does not vary much from one individual to another, but the lungs may breathe much faster at one time than at another, depending upon the particular stimulus. High altitudes and excitement bring about much more rapid breathing. In a certain jungle in India, the eyesight of the natives whose diet includes a great deal of honey becomes exceptionally good. They can follow a single bee for miles through the dense growth. The remarkable adaptability of man to all regions of the globe is a testimony to the variability of the functioning of his organs.

Different structures may vary considerably in the degree to which their functioning can be modified. The organs of speech are at one extreme end of this variation. Any people can learn to speak any language; the organs of speech in no sense dictate the language spoken. Since language is learned it can be varied greatly and hence is no criterion of race. Races with superior education do not necessarily have superior inherited mental abilities. We must be careful not to interpret cultural differences as the result of differences in race, since culture is passed on as part of the social, not the biological, heritage.

Culture and racial mentality. The type of culture possessed by the members of any particular race is frequently considered an index of their racial ability. This idea flows from the assumption that people create their own cultures; that the type of civilization they possess is a direct

[1] KARL PEARSON, "ON THE RELATIONSHIP OF INTELLIGENCE TO SIZE AND SHAPE OF HEAD, AND TO OTHER PHYSICAL AND MENTAL CHARACTERS," BIOMETRIKA, 5:105–46, 1906.

result of their inherited capacity. This view was widely held when social thought was dominated by the idea of biological evolution, and little was known about the growth of the superorganic.[1] But it will be seen in a later chapter [2] that while no appreciable biological changes have been observed in man in the past ten or fifteen thousand years, his culture has changed tremendously. Other factors besides inherited mental ability, such as inventions and diffusion of ideas from one culture to another, play important rôles in determining the level of a culture.

Conclusions on the question of racial abilities must be carefully drawn, for the subject is rife with emotion and the evidence is shaky. We may say that there may be inherited mental differences among races, but that it has not been proved; nor has any high degree of probability for such differences been established. There are differences in inherited capacities among family lines, but races are made up of millions of families and each race has its mental defectives and its geniuses. That men are created unequal is clear. That races are so created may be true, but the fact remains to be proved.

RACE PREJUDICES

Much of the phenomenon of race prejudice is based on these unfounded assumptions of racial superiority, but if it were proved that all races were created exactly equal, race prejudice would not disappear. There would still be conflict over economic issues, disagreement over beliefs, and friction over tastes and manners, just as there are religious prejudices and wars between nations of the same race. Whereas race distinctions are of a biological nature, prejudice is based on cultural differences. The not infrequent mating between members of different races is testimony to the fact that there is no biological antipathy. Race, however, does accentuate the friction brought about by cultural differences. It marks an individual with a sign, be it skin color, shape of eyelid, or texture of hair, which he cannot eradicate. These distinctive marks serve as stimuli for reactions of prejudice toward an individual of another race, even though his particular cultural and personality traits are not in themselves objectionable. Race prejudice is thus easier to arouse and more difficult to overcome than other types of prejudice. Accurate knowledge on the subject of race, and information as to how cultures grow and why they are different, however, should do much to eradicate these prejudices that split society into warring camps.

[1] W. T. SOLLAS, ANCIENT HUNTERS AND THEIR MODERN REPRESENTATIVES.

[2] Chapter XXIV, "The Growth of Culture."

SUMMARY

This chapter has undertaken to introduce the factor of heredity and to evaluate its significance for certain important aspects of human experience. Heredity contributes to variability through mutation, selection, and the intermixture of biological traits. Environment contributes to physical variability also, for changes in such factors as diet and disease are capable of modifying the somatic traits of the individual. More important, the social and cultural environments cause variability in mental and personal traits.

Both hereditary and environmental factors produce variability in human traits. Which is the more important influence? Emphasis has been laid on the fact that heredity and environment constitute an inseparable unity, although the two factors do not have uniform significance for all situations. It is useless to talk about the rôle of heredity or environment in general terms, or in brief expressions. It has been shown that genetic factors are of greatest importance in accounting for variations in man's physical appearance (race); they are of somewhat less importance in explaining differences in mental abilities; and they are of least significance for attitudes and habits, that is, for personality traits.

The relative significance of heredity as a factor in a given situation may be determined by keeping the heredity factor constant while varying the environment, and noting what changes, if any, occur in the situation in question. In the case of eye color, for example, there is no discernible change; brown eyes stay brown regardless of the part of the world in which man lives, so far as we know. It is therefore concluded that eye color is largely a function of heredity. Mental abilities, on the other hand, may change with variations in environment, as was seen in the study of identical twins. The limit of change that environment can effect along this line has not yet been determined. We have no accurate measure of differences in environment, but the environments of the twins certainly did not represent the most extreme contrast possible. Yet a change of 18 I.Q. points was found for one pair of twins. Theoretically, so far as mental abilities are concerned, environmental variations may be as significant as those that are hereditary. A feeble-minded person may be born such, or he may become such as a result of experi-

ence. As for personality traits, these are largely the result of environmental influences. This was shown in the case of the two sexes. Men differ from women in personality. The differences in personality traits of men and women differ greatly in different places and at different times in the same place.

QUESTIONS FOR DISCUSSION

1. What are the principal processes of biological change? Which is the most active process at the present time?
2. What is a continuous variation? Discontinuous variation? How are the two often confused? Is it correct to classify all people as either good or bad?
3. What do we mean when we say that heredity and environment are interdependent?
4. Does the hereditary component have the same significance for physical appearance, intelligence, and personality? Why?
5. "Any of the characteristics of the organism may be altered by changing its genes... Many of the same features... can be altered by appropriate changes in the environment." (H. S. JENNINGS, GENETICS, New York: W. W. Norton and Company, 1935, p. 241.) Discuss.
6. How important is the hereditary factor in accounting for criminal behavior? How would you explain the fact that certain societies are practically without crime?
7. What factors determine an individual's success and promotion in the army? Are these inherited or acquired?
8. Imagine Americans taking an I.Q. test based on Chinese culture "with Chinese writing materials while a Chinese psychologist held a stop-watch." (RALPH LINTON, THE STUDY OF MAN, D. Appleton-Century Company, 1936, p. 53.) Comment on this set-up.
9. How is the greater mental variability of males to be explained?
10. As a whole, girls get better grades in college work than do boys. How would you account for this? What is its significance?
11. Why are studies of identical twins who have been reared apart so helpful to sociology?
12. What scientific methods are used in testing the theory of innate differences in racial capacity? With what results?

TOPICS FOR REPORTS

1. An intelligence test based on American Indian culture. (VELMA HELMER, THE AMERICAN INDIAN AND MENTAL TESTS, University of Kansas, Master's thesis, 1926.)
2. Studies of race prejudice among young children.
3. The mental capacity and social status of racial hybrids.
4. The racial composition of the British Isles.
5. A comparative study of the personality traits of women in three different modern societies.
6. The J-curve hypothesis of conforming behavior. (F. H. ALLPORT, in the JOURNAL OF SOCIAL PSYCHOLOGY, 5:141–83, 1934.)

SELECTED READINGS

BOAS, FRANZ, THE MIND OF PRIMITIVE MAN. Revised edition. New York: The Macmillan Company, 1938. First issued in 1911.

The chapters on race in this book show excellently the limitations of race and of family strains in explaining cultural variations. This is one of the most distinguished books in the literature of race and culture.

HANKINS, FRANK H., THE RACIAL BASIS OF CIVILIZATION. New York: Alfred A. Knopf, 1926.

A sociologist makes out a very good case for selection of abilities in heredity as a force determining the course of civilization.

HOLMES, SAMUEL J., HUMAN GENETICS AND ITS SOCIAL IMPORT. New York: McGraw-Hill Book Company, 1936.

Early books on eugenics, before the rise of genetics, grossly overstated the case. The author of this book is more familiar with human social problems than most biologists, yet he, too, may have overemphasized the biological factor.

JENNINGS, HERBERT SPENCER, THE BIOLOGICAL BASIS OF HUMAN NATURE. New York: W. W. Norton and Company, 1930.

A good general account written by a very fair-minded biologist who has some orientation in sociology. Here and there he probably overplays the biological hand.

KLINEBERG, OTTO, RACE DIFFERENCES. New York: Harper and Brothers, 1935.

The best data in answer to the question of selection, environment, and race as factors in explaining the mental differences among races as shown by intelligence tests.

MORGAN, THOMAS HUNT, THE SCIENTIFIC BASIS OF EVOLUTION. London: Faber and Faber, 1932.

A book by the world's foremost geneticist, for students who may not be familiar with the achievements in this field.

SCHWESINGER, GLADYS C., HEREDITY AND ENVIRONMENT. New York: The Macmillan Company, 1933.

This book contains reports on the best data on this question that had been made up to 1933. The bibliographies are extensive.

WOODWORTH, ROBERT S., HEREDITY AND ENVIRONMENT. New York: Social Science Research Council, 1941.

A critical survey of recently published material on twins and foster children.

IV. THE INFLUENCE OF GEOGRAPHICAL ENVIRONMENT

THE ESKIMOS build their houses of snow. The Pueblos of the Southwest make theirs of adobe. The Manus of New Guinea live in wooden huts built on piles driven into the sea. The Bushmen of South Africa have no houses, their only shelter being a temporary wind-break which they build by piling up bamboo reeds against a support. For food, the Eskimos depend on seal. The Pueblo dwellers have corn, squash, and beans. The Manus eat fish, while the Bushmen subsist on wild game. Clearly geographical factors have something to do with the superorganic. The Eskimos, moreover, are brown-skinned, and so are the Manus, while the Bushmen are a leathery yellow. Is there some connection between geography and human physiology? In this chapter we will consider the possible relation of physiographic influences to race and culture.

GEOGRAPHICAL INFLUENCE ON PHYSICAL TYPE

Man's skin becomes darker in the strong sunlight of tropical countries. His physical type is thus modified by physiographic influences. This fact was made clear in the preceding chapter in discussing heredity and environment. Evidence of environmental influences was there presented. This evidence in so far as it relates to geography will be brought together and presented along with the new material in this section.

The influence of geographical factors on physical type would appear to be a subject matter for the natural, rather than for the social sciences. It is true that anatomy and physiology are not of direct concern to sociology. Only as these contribute to social life and to culture are they of interest to students of sociology. But geographical environment may affect society indirectly by changing the human physique. The sallow complexioned people who live along "Tobacco Road" in the eroded sections of the southern states have a diet defective in vitamin B and in certain minerals. They also have a shiftless social life. There may be

a connection between the inadequacy of nature's food supply and their admitted social handicaps. In any case, this is a type of question that needs to be examined. The first point to be investigated is whether changes in geographical environment make for changes in our body structure.

STRUCTURAL CHANGES DUE TO GEOGRAPHICAL INFLUENCES

If a person moves from New England to Arizona, does he undergo any change in appearance? Probably not, certainly not very much. Arizona sunshine would give him a ruddier complexion. He would not grow any taller, though if he took a lot of exercise in the open air, he would probably change in weight. This result would be due to more exercise, and hence could occur in any location. What changes would occur in the internal organs is not known. If he came from a New England city and moved to a ranch, his lungs would change in color from blackish gray to pink. A smoky city in Arizona will, however, blacken the lungs as well as one in New England. But certain changes of environment do produce changes in bodily form. Rats reared in a warm room have tails one centimeter longer than those brought up in a cold room.[1] The tail acts as an organ of radiation of heat. In a hot climate the rat must lose more heat, if its mechanism for producing heat does not change proportionately.

These changes in rats are brought about by changes in the laboratory environment and not by those in geographical location. Geographical environment is only one type of environment, which is a very broad term. The variations in geographical location, great as they may be from pole to equator, are not as great as the potential variations in a laboratory, which may be set up to produce extremes. There are other special environments, such as a greenhouse, a race-horse stable, a hospital, or even a city, which may be found in almost any location. Even though changes in the experimenter's laboratory may produce bodily changes in animals, it does not follow that these changes may be found in nature, for laboratory variations may be greater than those existing in the natural world. If the roots of tomato vines are suspended in a tray of specially prepared chemicals, the plants will produce many more tomatoes than they will on the ordinary farm.

Tropics and polar regions, deserts and swamps, valleys and mountain

[1] CORDELIA OGLE, "CLIMATIC INFLUENCE ON THE GROWTH OF THE MALE ALBINO MOUSE," AMERICAN JOURNAL OF PHYSIOLOGY, 107(3):637, March, 1934.

tops, would seem to be variations sufficiently wide to produce differences in man. The narrow slit-like opening of the nose of the Eskimo is perhaps the result of a geographical influence, for such nasal openings serve the purpose of warming a little the air taken into the nostrils. The dark skin of the African native protects the blood from too much penetration of the ultra-violet rays of light. The polar bear and the rhinoceros are adapted to their particular geographical environments and neither could live in the habitation of the other.

The adjustments of physical traits to different geographical environments are not simple processes, like the manner in which a person gains weight by overeating. Not all bodily traits are as readily changed as the cells between the tissues and the skin. There are four different ways whereby a biological adaptation to natural environment is achieved. These are (*a*) by mutation, (*b*) by selection, (*c*) by the degree of intermixture, and (*d*) by modification directly of the somatic characters of the individual.

As for mutations, they are not due to geographical location, for not all the individuals in the given locality experience the mutation. Among the millions of primroses growing in Holland, the mutation of a dwarf type appeared so rarely that it could hardly be attributed to geographical location, though it may have been the result of some other environmental force.

Selection of types by geographical environment. The process of selection of variations is a result of geographical location. Snakes cannot live in cold climates. Selection does not create modifications of structure, but acts rather as a sieve, letting some variations come through and holding others back. The sieve is different around the borders of the sunny Sahara desert from what it is around the borders of the cloudy Baltic Sea. Blue eyes and fair hair survive more readily around the Baltic than at the Sahara. Theoretically it is easy to see how heat, moisture, barometric pressure and light are selective factors.

But the practical question is, how much selection of physical types by geographical influences has actually taken place? Man lives all over the globe in nearly every environment. Furthermore, the short dark-haired Lapps live in Scandinavia along with the tall blue-eyed Nordics. The short Hopi Indians and the tall Navaho live side by side in New Mexico. Negroes and whites live in the same climate in Alabama. If geographical selection of types of men is occurring in these regions it is occurring very slowly and only to a slight degree. Since geographical

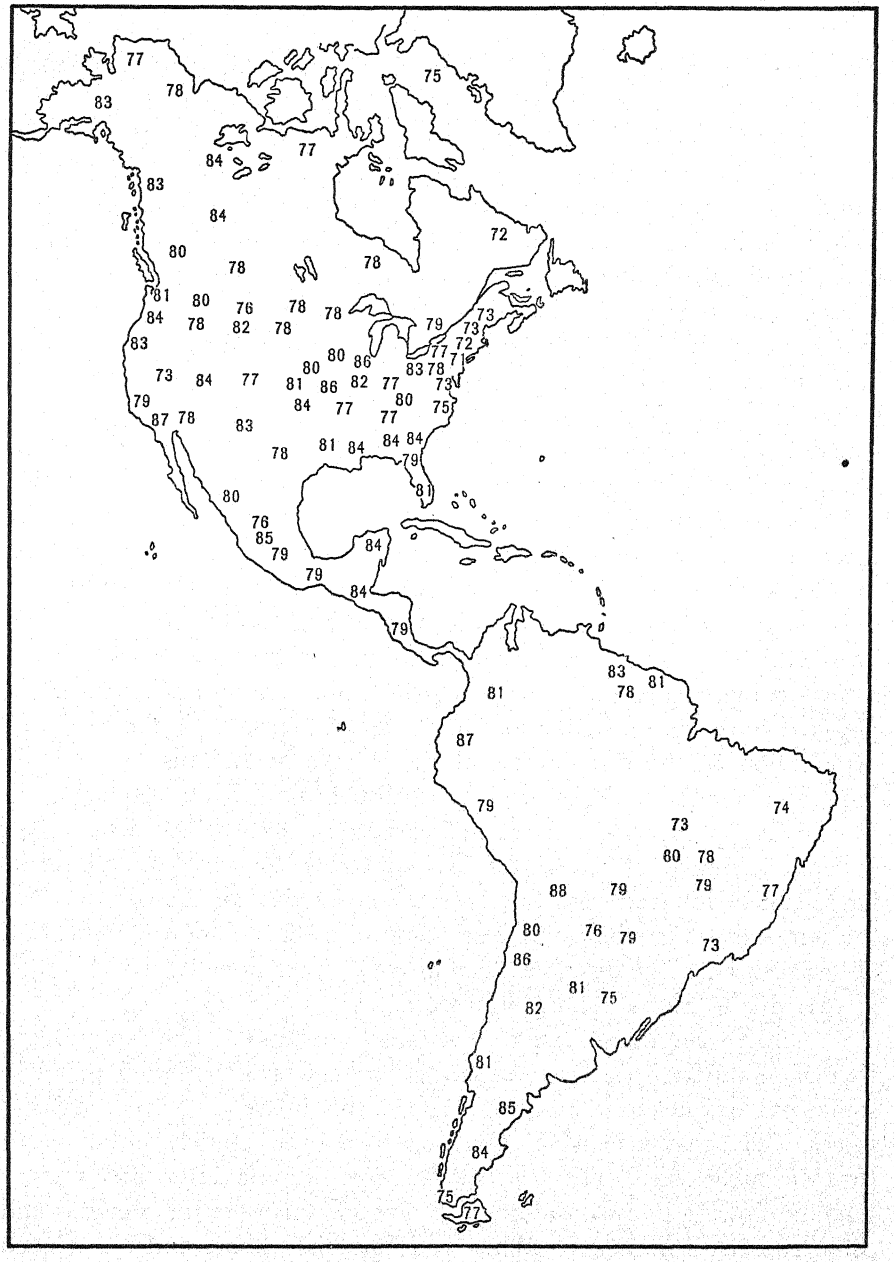


FIGURE 20. DISTRIBUTION OF CEPHALIC INDICES OF AMERICAN INDIANS

The variations in the head form of the American Indians indicated by the numbers on the map can hardly be the result of the environment. They do not conform to environmental differences and the head forms of the whites who now occupy these regions do not show the same variations as did those of the Indians. From WISSLER, THE AMERICAN INDIAN, *p. 330 (New York: Oxford University Press, 1922).*

selection is so obvious among plants and animals, it must be assumed to exist to some extent with man, but clear-cut instances are rare.

Influence of isolated regions. Structural types are established also by inbreeding. Inbreeding, it is recalled, involves the mating of resemblances. If two cousins marry, the offspring will be more alike than if each cousin marries someone who is not of close kin. In small villages of ten or twenty families, the probability of marrying among kin is much greater than in a city the size of New York. In very early times, primitive hunters lived in such small groups, two or three families perhaps settling in one locality. The inhabitants of that locality would be much alike. If the families happened to have round heads, there would be few long-headed offspring. Other communities may by the same process have a long-headed population. This type of inbreeding is likely to occur in regions where there are barriers such as rivers, mountains, deserts, or stretches of land without much food, and among peoples who do not have many inventions for transportation, and whose technology is so crude as to support only a small population. The isolated nature of some geographical locations, in the past, when cultures were less highly evolved than now, led to the establishment of certain physical types in particular localities. Such a process is the probable explanation of the distribution of the American Indians by cephalic indices, as shown in Figure 20. This distribution was hardly achieved by simple geographical selection of variations, because the distribution of cephalic indices of the whites does not follow the same pattern, in so far as can be inferred from the few samples existing for the whites. For the same reason it would not be a result of environmental modification of head forms. The distribution of physical types over the world is then in part due to migration and inbreeding.

Direct modifications due to geographical conditions. The last process, that of modifying directly the somatic characters of an individual, is a somewhat less negative and more productive influence of geographical forces. The region in which the individual lives supplies the materials that the body uses. The Jews should have become fatter after finding the land flowing in milk and honey. The soil furnishes the minerals and other chemicals needed by plants and animals. Bones and blood need calcium. The teeth require phosphorous, calcium, ultra-violet rays of light and ascorbic acid. Iodine prevents the deterioration of the thyroid gland. The absence of calcium produces rickets and weak legs. The absence of iron and copper causes nutritional anemia. The physiology

of reproduction, especially in its emotional aspects, is affected by the absence of manganese. Thus mother-love is said to be dependent upon manganese, which, however, seems to be plentiful.[1]

These facts and other similar ones are the discoveries of the scientific method of the laboratory, rather than the observed differences among men living in different parts of the earth's surface. They do imply, however, that geographical differences may affect the size and nature of physical traits. There is some evidence to this effect. The enlarged necks of individuals with goiter are seen much more frequently around the lakes of the Northwest where there is an absence of iodine, than along the seaboard where there is plenty of this mineral. The head forms of the children of immigrants from eastern Europe to New York are different from that of their parents, though the influence affecting this change may be urban rather than geographical. Defective teeth are often more common in the smoky northern cities than in the open country where food and sunshine are different. The chances of a child being bowlegged from rickets is greater where there is little sunshine or calcium.

Limits to geographical influence on physical type. Though Nature's bounty or niggardliness in the things the human body needs produces differences in bodily characters, the body of man is not mere putty in the hands of Nature. Long-headed and round-headed men and women live in the same location in central Italy. Geographical influences do not make their head forms the same. On the other hand, often the body will succumb rather than adapt under too great geographical change. This is true of some animals of the tropics, such as the platypus and certain snakes, when brought into the zoological gardens of temperate zones.

The reason why there are limits to the modification of man's constitution lies in the balance of its parts. Man's body is organized as delicately as a watch; a variation in one part may put a strain on the other parts. Excess fatty tissue puts a strain on the blood supply, and the death rate of men overweight is greater than that of normal men. The body has a number of regulators whose purpose it is to prevent excessive variation. The temperature of the human body must be kept close to 98 degrees Fahrenheit by an organ, the diencephalon, located at the base of the brain, which controls the sweating that cools the body, the shivering and panting which warm it, and also the flow of adrenalin which stimulates

[1] E. V. McCollum *et. al.*, THE NEWER KNOWLEDGE OF NUTRITION (New York: The Macmillan Company, 1939), pp. 262 ff.

the flow of fuel into the blood. By other controls the blood sugar is kept between 70 and 180 milligrams per cubic centimeter, and the salt in the blood is kept between the limits of .56 and 1 per cent.[1] There are definite limits beyond which man's structure cannot be changed to adjust to environment, and hence there are limits to the geographical influence on physical type.

Geographical Influence on Function

It has been shown in the preceding section that environmental influences make for changes in physical traits. But do these new traits lead to different behavior? Do red-headed persons behave differently from those with black hair? What difference in functioning does the color of hair make? It is commonly believed that people with red hair have more temper and are more inclined to fight. If such is the case, it is difficult to see how the red pigment in the hair produces the effect of pugnacity, or how it operates physiologically on the anatomical sources of emotion, wherever they may be. The adrenal glands play a mobilization rôle in fighting, but there is no specific connection between the pigment in the hair and the adrenal glands located near the kidneys. Perhaps a more reasonable explanation of the different behavior of the red-haired person is the social attitude toward red hair. In American culture the oddness of red hair in a child often leads to his being teased. The child resents being teased and compensates for his feeling of inferiority by developing pugnacity and a quick temper. Where red hair is greatly admired, the reaction is probably different.

Is physical type correlated with behavior?

The question is therefore raised as to whether different physical traits are directly linked to differences in behavior. The answer probably is that they are and are not. As between different species of the animal and plant world, structure and function are closely correlated. A dog does not behave like a cat, nor a cat like a dog. Among human beings, a child behaves differently from an adult in several respects and their structures are different. Children laugh and cry more and sit still for shorter periods of time. Men and women have anatomical differences, and their behavior is different, but it is difficult to prove

[1] Walter B. Cannon, The wisdom of the body (New York: W. W. Norton and Company, 1932).

that the behavior of women is unlike that of men on physiological grounds, apart from cultural reasons. For instance, women's supposedly greater modesty may be due to habit and social valuations rather than to any anatomical distinctions.

But men and women, children and elders, live in the same habitat, so that the above illustrations do not concern geographical influences. More difficult to find are examples of changes in behavior due to geographical modifications of bodily traits. There is no correlation between shape of head, or size of head, and intelligence. A person with a longish head behaves no differently, so far as is known, from a person with a round head. A person with a narrow opening to his nose behaves the same as a person with a broad opening, except perhaps in regard to breathing. There is not very much evidence to indicate a change in behavior as a result of physiographic modifications of bodily traits. The most promising lead is the effect of inadequate diet on structure and hence on behavior. A person with a deficiency of calcium who has rickets is not likely to engage in athletic activity. Such cases may be found in individuals and in families, but a general geographical influence of this kind on a large number of individuals would be difficult to find. A famine weakens and kills, but generally does not last long as an influence on the physical constitution of a people.

THE EFFECT OF CLIMATE UPON ENERGY

Hitherto in this chapter the discussion has concerned the influence of natural environment only indirectly on behavior, through the medium of changed physical traits. But geographical environment may change behavior without changing any physical traits. In the hot summers when we take a vacation in the cool mountains our activity is somewhat different. In higher altitudes, the air pressure is lower, with less oxygen per cubic foot of air. The heart must beat faster to obtain enough oxygen. The atmosphere of the high altitudes is a stimulant to the heart, but there is no change in the structure of the heart.

Weather influences. In a study of the behavior of school children in Denver, Colorado, a correlation was claimed between deportment and weather. The demerits given for misbehavior were less numerous when the temperature was very low or very high, when the barometer was high, when the humidity was great, on calm days and on cloudy wet days.[1] There was more misbehavior on dry windy days. The increase

[1] EDWIN G. DEXTER, WEATHER INFLUENCES (New York: The Macmillan Company, 1904), p. 140.

in the number of demerits was interpreted as an increased vitality on the part of students on those days and a resulting restlessness which manifested itself in misconduct.

It seems reasonable that variations in climate or location may produce variations in activity, even if not in structure, for the functioning of structure is much more variable than structure itself. Once an adult's organs are fully developed, it is not easy to change them, whereas their use or activity may be greatly varied.

Among the lower animals, these variations in activity are often related to adjustment between organism and environment. Animals brought from the tropics to the temperate zones do not give off heat so freely. The functioning of human infants is affected by changes in temperature, so much so that in very hot spells they may not adjust, and death results. If there is a good adjustment between the animal and his surroundings, a change may produce a maladjustment. Thus when mice reared in a cool room are changed to a warm humid environment, sex functioning is less efficient as measured by number of matings resulting in pregnancy, by size of litter and by variability of offspring.[1] The adjustment is easier for a very young animal than for a fully grown one, especially in regard to adaptation of structure. It was the American-born children of immigrants that had a head form different from that of their foreign-born parents. The head form of the immigrants themselves did not change.

While these changes in activity are basically physiological, they do sometimes translate themselves into cultural activity. Ellsworth Huntington[2] finds that a small change in daily temperature increases the productivity of factory workers. They turn out more goods on such days than they do on days without a change. This conclusion is drawn from the records of piece workers in New England factories. Very marked changes in daily temperature cause a decline in factory production. The resultant increases or decreases in efficiency are very slight, around one or two per cent for a five- or six-degree change in average daily temperature. These conclusions are likewise supported by the data on daily grades in mathematics among the students at Annapolis and at West Point.

Seasonal variations. Climate varies by seasons also, and there is a

[1] CORDELIA OGLE, "ADAPTATION OF SEXUAL ACTIVITY TO ENVIRONMENTAL STIMULATION," AMERICAN JOURNAL OF PHYSIOLOGY, 107:628–35, March, 1934.

[2] ELLSWORTH HUNTINGTON, CIVILIZATION AND CLIMATE, p. 276.

variation in activity by seasons. This influence of seasons on activity is most clearly seen in the case of illness. Influenza and pneumonia, for instance, are more frequent in the winter. Other types of seasonal influence on behavior are complicated by cultural factors. The productivity of factories by seasons is governed by changes in demand, rather than by changes in climate. The Christmas season stimulates production in preceding months because of the holiday custom, and not because of the temperature. Another illustration concerns marriages. The month with most marriages in England is June. Springtime is the mating season for birds; it seems to be for humans too. But curiously enough, in the early part of the nineteenth century when England was largely agricultural, and before the Industrial Revolution had gotten well under way, the month of most marriages came in the autumn after the harvest time.[1] It was a change in culture, not in climate, that varied the mating season.

The correlation of behavior with the seasons is often not a matter of climate operating in a simple way as it does on the lower animals; it is an indirect relation, modified by culture. The seasons alone do not dictate, for instance, school attendance in winter rather than summer. The analysis thus brings us to types of social behavior more complicated than the simple expression of energy.

THE EFFECT OF CLIMATE UPON SOCIAL BEHAVIOR

The influence of change of climate on behavior is most clearly seen in physiological functioning such as breathing, blood pressure, rates of growth, and sex behavior. These functions derive largely from localized organs, such as lungs, heart, pituitary glands, and gonads. There is, however, no localized organ for social behavior. It involves a large number of organs of the body, such as the nervous system, the eyes, ears, mouth, vocal cords, and glands of internal secretion. The integration of the functioning of all these organs into social activity means that the latter is greatly dependent upon learning and conditioned responses. It does not seem probable that changes in geographical conditions would modify social behavior as readily as they do the physiological functioning of specific organs.

Social behavior is learned behavior, different from automatic behavior such as breathing, or the beating of the heart. Since social activity is learned, it can be varied by the learning process. We may

[1] DOROTHY THOMAS, "CHANGES IN MARRIAGE SEASONS," ECONOMICA, 4:10:97–108, 1924.

speak different languages involving different rhythms and accents, depending on how we learn. The variations in behavior due to climate may be in turn varied by learning or culture. For instance, a computer doing multiplication may work two per cent slower on days when the temperature remains the same than on days when it changes, but if he learns how to use logarithms, he may do the computations one hundred times faster. The change due to learning overshadows the change due to climate.

Not only may the climatic influences be obscured by those of learning, but the cultural influences may be so numerous and so powerful as to make the effect of climatic change quite negligible. There are, for instance, many factors other than climate that stimulate factory production. Production may be affected by the piece-rate system, by practices of cutting price rates, by personnel managers, by the business cycle, by advertising, by trade unions, by social legislation, by employment methods, by labor turnover policies, by bonuses, by plant lighting, by distribution of rest periods, by anticipation of holidays, by regulation of hours of labor, by the organization of the plant with reference to the flow of goods, and by various motivation factors. It can easily be seen that climate does not operate simply and directly on social behavior.

To cite another illustration, the air in high mountainous regions may be stimulating, but the mountain climate doesn't determine how the energy may be spent. It doesn't convert the accelerated heart beat, breathing and adrenalin flow into cultural activity. Industrial production in a mountainous country like Norway or Switzerland may be much less than in a low flat country like England, which has better transportation facilities and more coal mines. The climate of high altitudes may be favorable for mental work, but more research work may be done at sea level if the universities are located there, for a sound research "atmosphere" depends upon stimulating mental contacts with other research workers as well as upon barometric pressure. The inhabitants of a great city like Philadelphia walk with a livelier step than they do in a small hamlet located in the same geographical region.

Climate and geographical location may stimulate physiological functioning, and also cultural achievement, provided the culture does not otherwise change and is the same from region to region. But such is never the case. Cultures vary from region to region, and are nearly everywhere in a state of change. Hence the effect of climatic stimulation is small or even infinitesimal compared to the cultural stimulation.

Though the cultural environment be more important than the natural environment as a source of variations in social behavior, the question may still be asked: is the natural environment responsible for our social heritage? Is culture the result of geographical influences? Our next concern, then, is to study the relation of geographical location to the superorganic.

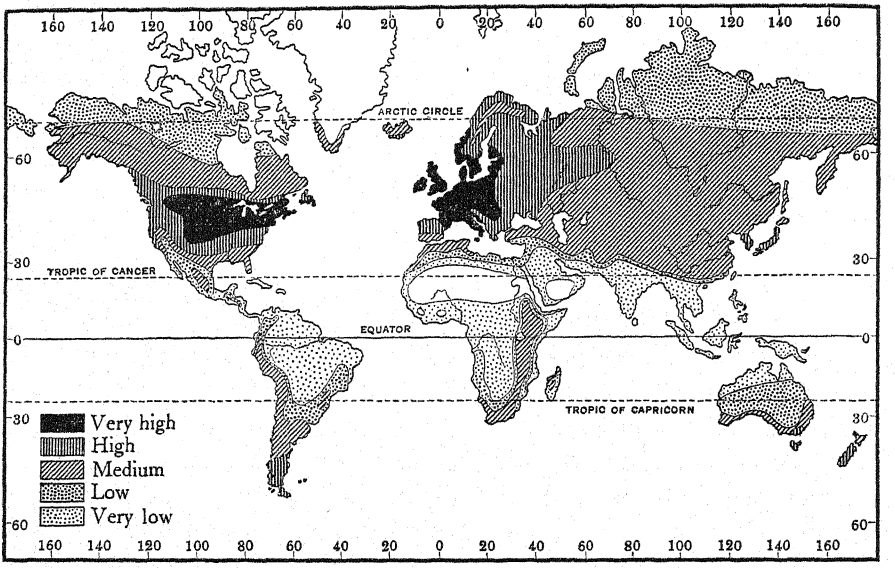
Physiographic Influences on Civilization

The great civilizations of the world today are found in the temperate zones. Could the skyscraper buildings, the airplanes, telephones, universities and medical centers of the United States and Europe have been produced in any other climate or region? Does this great social heritage, to which the reader is heir, rest in last analysis upon climate? The usual statement is that the temperate zones have a more energizing climate than the polar and tropical zones with their severe cold and heat, and that this stimulating climate operating on man has led to the achievement of these great civilizations. This assumption, it may be observed, omits the racial theory of the origin of civilization, which is also a popular notion. It stresses climate as a feature of geography to the neglect of the resources of the soil.

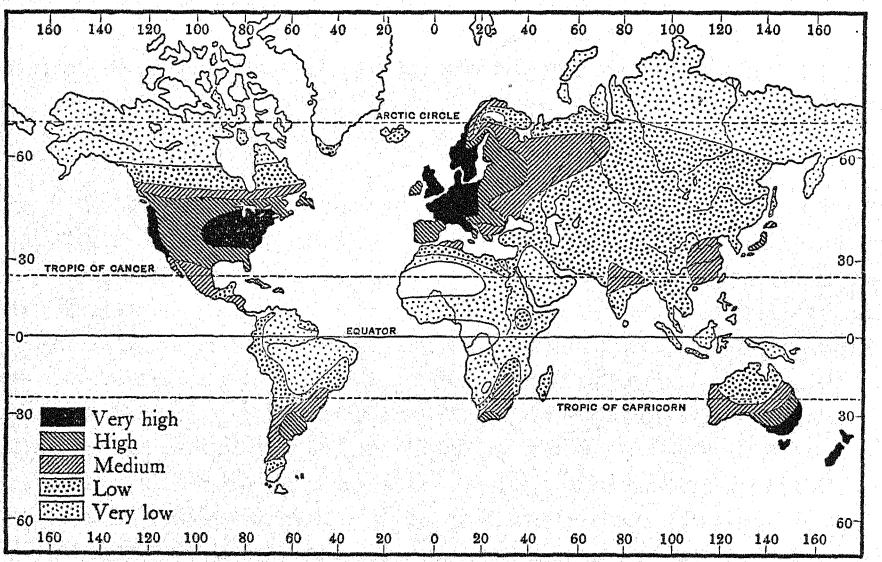
CLIMATE AND CIVILIZATION

A comparison of a map indicating the temperate climate of the world and a map showing the location of the most important civilizations reveals marked similarities, as may be observed from the two maps prepared by Huntington,[1] given in Figure 21. Some question might be raised as to the accuracy and fairness of the measurement of energy and health as shown on the first map and its representation on a range from pure black to pure white. Some question might also be raised in regard to the use of the terms "high" and "low" civilization as represented in the second map. The civilization of warlike Europe may not be considered by moralists as high as that of peaceful and orderly Iceland, which the map rates lower. But leaving aside these questions and the moral valuations of civilizations, the maps do roughly differentiate temperatures and set off the areas with complex technological civilizations from those with simpler ones. But the striking similarity does not prove that one is the cause of the other, or that the climate is the cause

[1] Ellsworth Huntington, *op. cit.*, p. 295.



The distribution of human health and energy on the basis of climate



The distribution of civilization

FIGURE 21. CLIMATE AND CIVILIZATION

These two maps showing estimates of health and energy and of level of civilization show considerable similarity, with the help of the proper shading. Yet these supposed correlations may be due to influences other than climate and health. From ELLSWORTH HUNTINGTON, CLIMATE AND CIVILIZATION, *p. 295 (New Haven: Yale University Press, 1924).*

of the civilizations. It may be observed, for instance, that in the dark area covering the northeastern part of the United States, there is now a very advanced material culture. Three hundred years ago, when inhabited by the American Indians, this same area was much less advanced; yet there has been no appreciable change of climate during that time. If climate caused the high civilization at one time, why not at another? Before the coming of the white man to the Americas, the material and scientific culture was much more advanced among the Mayans in Yucatan and Central America than among the Indians of the northern United States. The Mayan culture was achieved mainly in the hot, tropical lowlands and not in the neighboring highlands of from 4000 to 8000 feet, where the climate to the white visitor is delightfully cool and stimulating. The Mayans had a culture quite comparable to that of early Egypt. They had more and larger pyramids than Egypt, though they were not used for burials. They invented a calendar which had months with an equal number of days, an attainment desired but not yet reached by us. They also invented the zero, which was not achieved by either the Greeks or the Romans, but was brought to Europe by the Arabs after the fall of Rome. The Mayans did not use metal tools or weapons and had no wheel or domesticated beast of burden. The fact that the locale of the advanced Mayan culture was the tropical lowlands instead of the high cool mountains is an interesting datum to set off against the idea that the tropics are too hot to develop a high civilization.

Central America and Yucatan have, according to Huntington's map, a much less energetic climate than the northeastern part of the United States, where the technological culture was crude compared with the Mayan. Also at that time the culture of most of the California Indians in that remarkable climate was about the lowest of any in the Americas. At one time the culture of Egypt was relatively much more advanced than that of Denmark, which on the climate map under discussion is a much greater source of energy than the valley of the Nile.

The white man who is accustomed to a cool climate does not feel very energetic, it is said, when he visits the tropics. Yet such may not be the case with the native who was born there and has become adjusted to the climate. On this point a reliable observer reports, "In the more moderate tropics which generally prevail, I have spent much time trying to ascertain the cause of the wide spread belief that white men degenerate in the tropics. I found cases where there was a falling off in efficiency,

but more cases where there was little or no falling off . . . and many cases where there was an actual increase of strength and efficiency." [1]

Regional sources of energy and level of culture. One of the theories of energy and achievement is based upon the glands of internal secretion, such as the thyroid, the pituitary, and the adrenals. The thyroid, whose basic chemical element is iodine, affects the utilization of oxygen. Persons with a deficiency of iodine develop goiter. There are a number of geographical locations where there is a shortage of iodine; Switzerland, the Central American highlands, the borders of the Great Lakes in the United States, and the northern Willamette Valley in Oregon. In Oregon, as elsewhere, iodine is now supplied in the drinking water and in table salt, but before this practice was begun, the civilizational achievements of Oregon were not meager. Its civilization was not low, certainly no lower than that of South Carolina, where there is so much iodine in the soil that it is called the iodine state. Perhaps the deficiency of iodine is compensated for in some degree by the exercise of the other glands. Though it is said that only a few grains of iodine separate an Einstein from a gibbering idiot, the influence of this source of energy is not discernible in the cultures of Oregon and of South Carolina.

FACTORS OTHER THAN CLIMATE AFFECTING CULTURE

In explaining the map showing the distribution of civilization, factors other than climate must be considered. For instance, in the twentieth century the extent of civilization is certainly dependent upon the resources of the soil, especially the energy resources. Energy is a much discussed climatic influence, yet the total energy of the coal supply of the United States is much greater than that of its population. It would require the labor of 13,000,000,000 slaves to do the work equivalent to the horse power of the machines in the United States. The fact that the United States and Europe have abundant coal is one reason for their cultural advance.

Another factor is the state of inventions. Until the steam engine was invented coal was not of much use. The coal meant nothing to the American Indian. Furthermore, the machines that use coal, such as the steam engine, are made of steel which is in turn made of iron, which is not a climatic factor. Though coal, oil, falling water and iron ore are not climatic factors, they are products of geographical location.

[1] R. E. DANFORTH, "UNDER HIS OWN VINE AND FIG TREE," SCIENTIFIC MONTHLY, 36:539, June, 1933.

If the distribution of civilization as shown on the map in Figure 21 were the result of geographical influence alone, civilization should have been spread over the Americas in the fifteenth century in the same manner as it is now found in the twentieth. Clearly important factors other than climate are needed to account for the variations in civilization. These factors are considered in a later chapter.[1]

THE UNCREATIVE RÔLE OF GEOGRAPHICAL ENVIRONMENT

The culture of Scandinavia fifteen hundred years ago was not very greatly different from some of the advanced cultures of the American Indians. In some ways it was not so advanced as that of the Mayan Indians at that time. The Scandinavians had cattle and metals, but they used the bow and arrow. Their housing was crude, and superstitions were common. Today Sweden, Norway, and Denmark have as advanced a culture in many respects as is to be found in the world, with all the modern developments of science and technology, and with a high development of co-operative organization and progressive legislation. Yet during this time the geography around the Baltic Sea has not changed appreciably.[2] The growth of the culture could not be due to changes in geographical conditions. Some other causes must be sought.

Again, there are peoples living in essentially the same climate who have widely different cultures. In the southwestern part of the United States the Hopi and the Navaho Indians have lived for centuries in the same locality, but their cultures are quite different. The houses of the Hopi are built of adobe and may rise for several stories like apartment houses. The Navaho live in single-room dwellings, shaped much like the Eskimo domed snow house, but built of branches of trees. The Hopi are agriculturists and harvest crops. The Navaho are nomads and graze sheep. The religion and family life of the two groups are quite different. Since under the same physiographic conditions we find vastly different cultures, we must conclude that climate plays no precipitating or creative rôle in building the social heritage.

[1] Chapter XXIV, "The Growth of Culture."

[2] "... Since the beginning of human history, there have been no striking changes in the major land and water features of the earth." While climate has been less stable, "daily weather changes are more pronounced than changes over a long period of time." C. C. HUNTINGTON and F. A. CARLSON, THE GEOGRAPHIC BASIS OF SOCIETY (New York, Prentice Hall, 1933), p. 68.

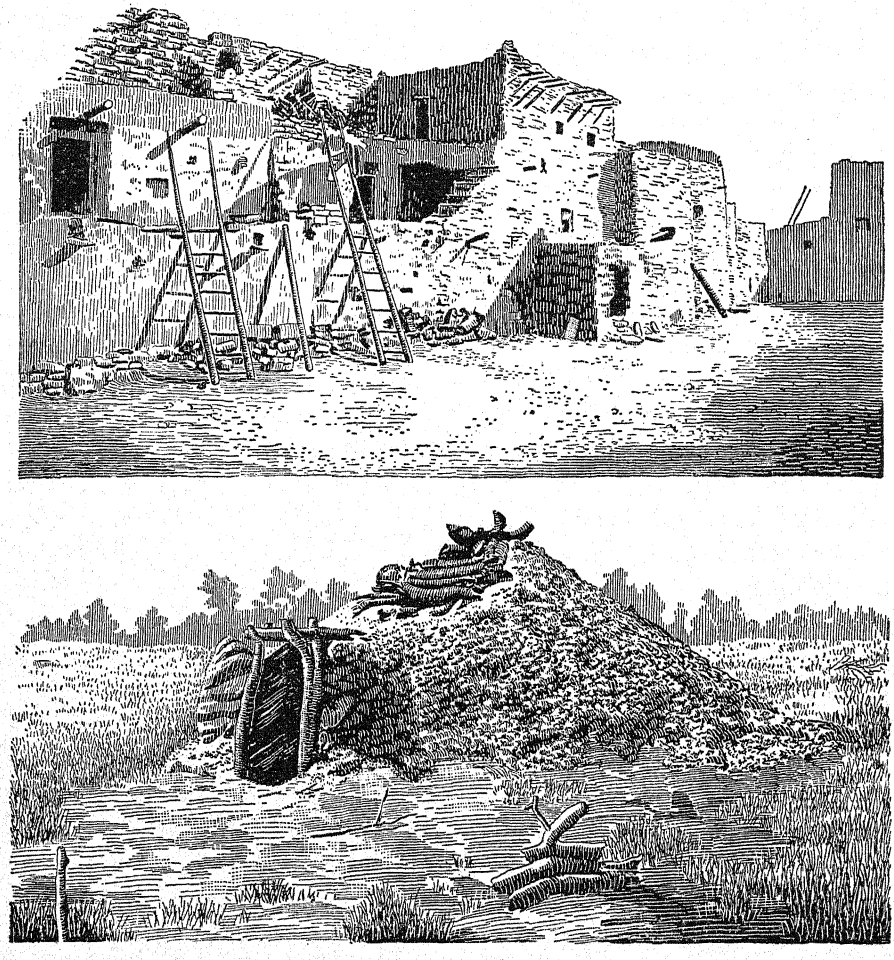


FIGURE 22. HOPI AND NAVAHO DWELLINGS

These two types of Indians live in lands adjoining, yet the similarity of the geographical environment does not lead to similar types of dwelling structures. The Hopi house of adobe is like a modern apartment house, while that of the Navaho is a one-room dwelling made with a framework of boughs with a light covering of sticks, grass, and earth. Based on pictures in the eighth and seventeenth Annual Reports of the U.S. Bureau of Ethnology.

THE PHYSIOGRAPHIC MATERIALS FOR CULTURE

The houses of a people are usually made of materials of the region. The production of pottery is dependent upon the supply of the proper type of earth. The clay in the Euphrates Valley was favorable for making small clay blocks on which the writing known as cuneiform was

developed. Papyrus was native to Egypt, where it was used for paper. The Samoans use the thin lining of the bark of native trees for making clothing. The reindeer was domesticated by the Lapps in the North, where it was native, while the horse found on the plains was domesticated far to the south by the people living there and not by the Lapps. Certain, then, it is that Nature presents materials for culture to use.

But whether culture uses the materials presented to it is another question. The presence of the material is no guarantee that it will be used by a people, no matter what the biological inheritance of the race may be. Before the discoveries which made agriculture possible, the people used the fertile plains of the river valleys only for hunting and gathering herbs. There are peoples who live where clay is suitable for pottery, but do not make it. The caribou was not domesticated by the Indians of America, though this was done by the Lapps of Europe and by the Chukchi of Asia. The Indians lived over the Mesabi iron range, but never used the iron ore beneath them. In colonial times the iron ore of the Appalachians was smelted by the use of charcoal from wood, although coal suitable for making coke was abundant. It is only since the latter half of the nineteenth century that Americans have been using aluminum, although the bauxite is common.

An instructive example of the failure of a people to take advantage of available materials is afforded by the Onas of South America. In this respect they may be contrasted with the Eskimos. Here are two peoples living in cold environments, the one to the north, the other to the south. The Eskimos have made a most satisfactory adjustment to their environment, considering the limiting circumstances under which they must live. They have good houses and a remarkably complete wardrobe. Indeed, the latter surpasses that of most civilized peoples of the past. The Onas, on the other hand, go practically naked, and lacking adequate shelter, seek unsuccessfully to keep warm before an open fire. Yet the Onas hunt the guanaco, the skin of which is suitable for clothing. In trying to account for the backwardness of these people, then, geographic conditions are not to be emphasized.

Moreover, materials presented by Nature may be utilized, but Nature does not determine *how* they will be used. A large part of the world possesses domesticated cattle but not all people use the meat or milk. In China no animal is milked. The Negroes of Africa do not make cheese, and use butter as a cosmetic but not for eating. In the latter part of the nineteenth century Americans used coal only as a fuel, but the Germans were using it also for dyes and perfumes.

The earth gives us materials, but what causes them to be used is the presence of invention or scientific knowledge about their use, plus a favorable attitude on the part of the folkways toward their use. The presence of the materials does not, *ipso facto*, bring the knowledge of their use. Neither does biological inheritance. The inherited ability of the Germans did not change from the time in which they used coal for fuel, wasting the by-products, to the time when they founded a great chemical industry on these by-products. The knowledge of how to use materials grows out of previous cultural knowledge.

GEOGRAPHIC FACTORS IN THE EVOLUTION OF CULTURE

The fact that different parts of the earth have different materials for culture to use has led to different cultures. For instance, extensive flat grazing lands where there were large herds of cattle led to a nomadic life, often with an effective military organization and a culture with a strong masculine domination. On the other hand, the hoe culture of the river valleys and mountain sides gave rise to villages and a sedentary life. The position of women who cultivated the soil was generally higher. In this manner has there arisen a differentiation of culture traits in different parts of the world. As transportation developed, these different culture traits spread, so that a group could have the advantage of inventions made in other localities. Domesticated cattle were adopted by the agriculturalists and farming methods were taken up by cattle breeders. Inventions spread from the locality where they originated. The chicken was domesticated in southeastern Asia, but has spread to all parts of the world. Southeastern Asia has tobacco, which came from America. Geographical location has furnished the basis for various cultures which have later been compounded, to the great advantage of the development of the superorganic.

Influence of climatic changes. An interesting question in regard to climate and the evolution of the superorganic is whether climatic change during the long history of man has been a factor in the growth of culture. It was stated in a previous paragraph that the growth of culture in the Americas since 1492 could not be attributed to changes of climate, since there had been no significant climatic change. But over a much longer time, climate and geographical conditions have changed greatly. It is well known, for instance, that the climate of Europe has changed during man's residence there. Four times during the past half-million years, more or less, the upper half of Europe has been covered by glaciers. At

times central Europe has also been subtropical. England was once joined to the Continent and the Mediterranean Sea was two lakes.

In these early geologic times, the way in which climatic changes affected the growth of the superorganic is not known. It may be observed that the climatic changes were slow. Glaciers recede only a few feet a year. The rise and fall of the earth's surface is gradual. Occasionally a volcanic mountain island has been thrown up rapidly and lands have disappeared quickly into the sea, but these are exceptions. If the change of climate is very slow, its effect on the superorganic development would appear to be slight. Occasionally, however, slight changes of climate do affect the superorganic. For instance, when the rainfall is very light, as in the semi-arid region of the southwestern part of the United States, and springs are few, a slight lessening of precipitation dries the springs and makes food scarce. The inhabitants are forced to move, even to abandon towns and villages. Such is the interpretation of abandoned villages and towns in this region. Yet for inhabited areas where the rainfall is, say, 45 inches, a yearly fluctuation of a few inches makes little difference. In spite of exceptions, the changes of climate during geologic time are not likely to have been of great significance in the growth of culture, any more than marked variation in climate from one region to another explains the differences in the civilizations in those regions today. What needs to be particularly noted is that the superorganic has had its greatest development since the recession of the last glacier. Its growth has been especially rapid since the period of written history, when climate has been quite stable.

Cultural level and dependence upon geographical conditions. The lower the cultural level of a people, the more dependent they are on prevailing geographic conditions. Primitive hunters living in caves, without domesticated animals and with only stone weapons, live close to nature. They do not have the skill to change it. Their manner of life is nearer that of the animals than that of modern human beings. As they learn to build houses, to heat them, to sow seeds, and to reap harvests, they are freed from limitations of physiographic factors. Increasing enrichment of culture means increasing liberation of man from the clutch of climatic circumstance.

Influence of Culture on Geography

The furthest extreme to which culture has freed man from the limitations of geographical environment is in the modern city. The

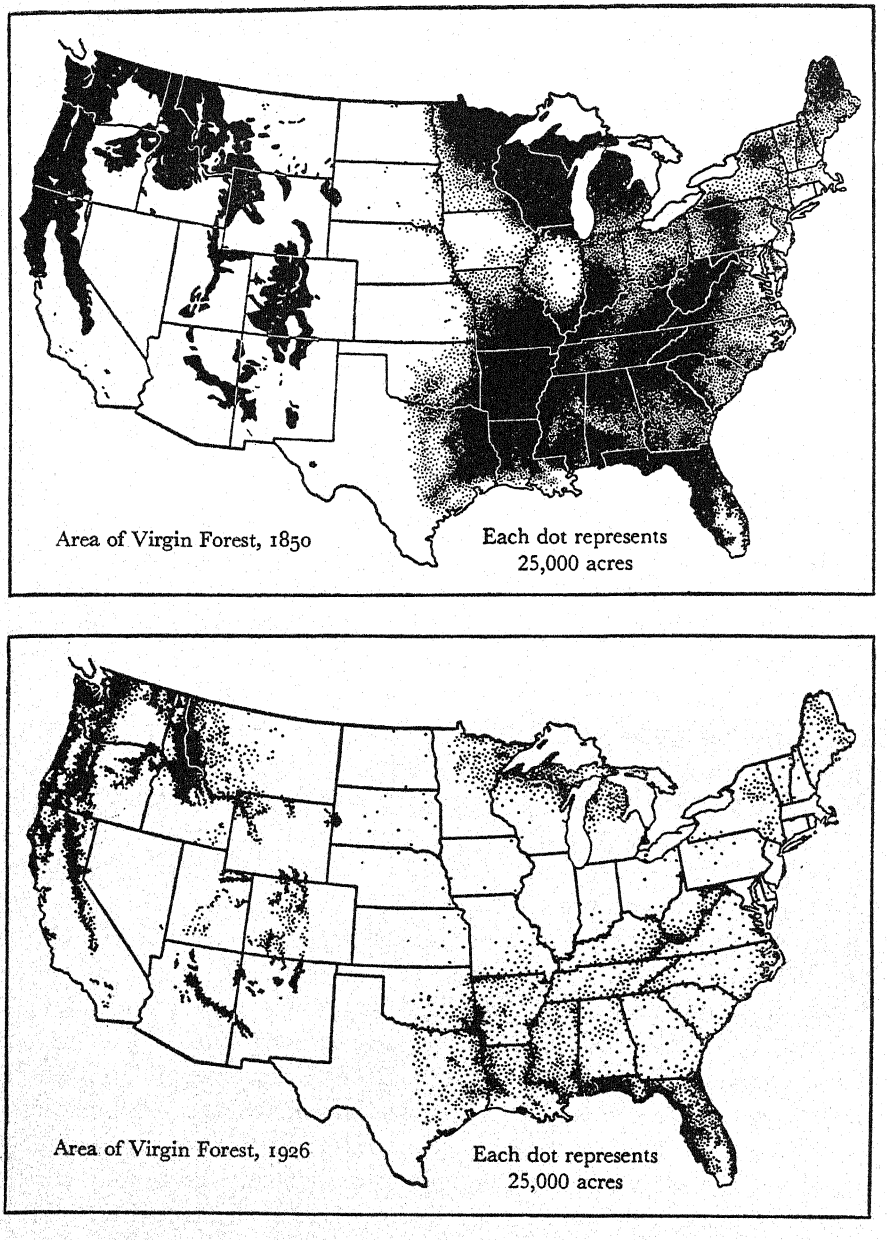


FIGURE 23. EFFECTS OF CULTURE ON NATURAL ENVIRONMENT

The decrease in the area under virgin forest in the United States in three quarters of a century. Reproduced on a reduced scale (approximately 1:50,000,000) from the Atlas of the Historical Geography of the United States, Carnegie Institution of Washington and the American Geographical Society of New York, 1932. From BOWMAN, GEOGRAPHY IN RELATION TO THE SOCIAL SCIENCES, *p. 35 (1932 edition) (New York: Charles Scribner's Sons, 1934).*

houses are heated in winter and cooled in summer. Shelter is provided in transportation vehicles. The streets are cleaned of snow. Most of the activity is indoors. Weather means less to the city man than to the farmer, and less to the farmer than to the hunter. Man lives less like a wild animal in the city than in any other habitation he has yet had.

Artificial heating is an invention that man has used for a long time to push back the limits of climate. Now he is learning to produce cold. Artificial cooling may aid in extending the cultural advance into the tropics. The knowledge exists in our culture to create in a small space any kind of climate desired. Artificial sunlight, moisture, dryness, any degree of temperature, any proportion of daylight or darkness, strong winds or gentle breezes, man can produce. He can, if he wishes, supply the climate of the polar regions or that of the hot dry desert, but at a price. As Bowman suggests: "Man can build a comfortable and well-lighted city and provide education, opera, and games at the South Pole, or build an artificial, rain-compelling mountain range in the Sahara at an expense equivalent to that of cutting a few Panama Canals. But will it pay?" [1] It may be concluded that the limits imposed by natural environment are not insuperable and that they are being changed by science and technology.

Culture not only pushes back the limits of geographical conditions, it actually changes them. The cutting down of forests increases floods. The maps in Figures 23 show such man-made changes in environment: the decrease of the area under virgin forest in the United States in three quarters of a century. Cultivation of the hillside may destroy the soil through erosion. The dust storms which are turning sections of our grazing lands into deserts are caused by man, who has plowed up the grass roots that formerly bound the soil.

The soils of the earth, however, can be reconstructed as well as depleted, as farmers do yearly. The Grand Coulee Dam in eastern Washington creates a lake that makes a desert bloom. Lakes may be formed and deserts made fertile. It is now possible to clear away fog from an airplane landing field, and also to extend vision through a fog to a much greater distance. It has proved difficult to create rain, though the planting of forests will in time increase precipitation. We may conclude that the further development of culture will furnish man in part with an artificial substitute for his natural environment.

[1] ISAIAH BOWMAN, GEOGRAPHY IN RELATION TO THE SOCIAL SCIENCES (New York: Charles Scribner's Sons, 1934), p. 164.

SUMMARY

This chapter has assessed the significance of natural environment for man and his culture.[1] A review of the relationship between geography and race revealed that the former may play a part in the modification and selection of bodily structure, but as to what significance for culture this may have, we are not entirely clear. It would seem, too, that a plausible relationship might be established between energetic behavior and certain kinds of climate, but convincing evidence is lacking that such climatic stimulations of energy are responsible for the growth of culture.

The fact is that in the growth of culture, "We have no evidence of a creative force of environment." [2] It was pointed out that the culture of a region may change profoundly while the geographical conditions remain constant. Manhattan Island today has a social heritage quite unlike that of the inhabitants whom the white man displaced. Also, two or more groups may live in the same general region, yet show greatly divergent patterns of behavior, as was shown for the Hopi and the Navaho.

Geography does play an important rôle in furnishing materials for culture. It does not dictate what materials shall be used. The reindeer was domesticated by the Lapps, but not by the Eskimos, among whom it was first introduced by the American government. Nor does geography dictate how materials shall be utilized. Cows are used for meat by some peoples, for milk by others, and exclusively for religious purposes by still others. The use of the material furnished by nature depends on the existing state of knowledge and the point of view of the prevailing folkways. As the culture expands, new materials of nature are utilized. Waterways served as transportation routes when the boat was invented, and now the air is the route for the dirigible, balloon, and the airplane.

Man is, of course, an organism adapted to nature. As such, he is ultimately dependent on his geographic environment. Wide fluctuations in geographical conditions set limits. However, given relative stability of natural conditions, such as man now enjoys, he can become master of his natural environment rather than remain its slave. Man's

[1] The rôle of geography in affecting the location, size, and functions of communities is considered in Chapter XIV, "Human Ecology."

[2] FRANZ BOAS, "THE AIMS OF ANTHROPOLOGICAL RESEARCH," SCIENCE, 76:605–13, 1932.

growth in knowledge has allowed him to escape in part from the controls of nature to which other animals are subject, and even to substitute increasingly an environment of his own devising. In the life of man the major emphasis deserves to be placed on the cultural rather than the natural environment.

QUESTIONS FOR DISCUSSION

1. In what four ways is biological adaptation to environment achieved? Show how these are, or are not, dependent upon the factor of geographic location.
2. How can you show that there are limits to the adaptability of the human body to changing environment?
3. How may cultural influences outweigh climatic influences in determining the degree of human efficiency?
4. How would you account for the fact that despite the white man's prejudice toward darker-skinned races, sun tanning is popular in our culture?
5. What is Ellsworth Huntington's theory regarding the relation of climate and the level of culture? How does he attempt to prove his point? Criticize his evidence.
6. Why do we say geography is a limiting rather than a creative factor as regards the superorganic?
7. Is the geographical location of a community today less important or more important than it was one hundred years ago? Why?
8. In what ways has culture changed the natural environment?
9. What are some of the effects of air-conditioning on man's relation to the natural environment?

TOPICS FOR REPORTS

1. A comparative study of the cultural similarities of two peoples living under dissimilar geographic conditions.
2. A comparative study of the cultural dissimilarities of two peoples living under similar geographical conditions.

3. The various uses of the cow in different cultures.
4. The effect of seasonal variations upon human behavior.
5. The Mayan civilization and its geographic setting.
6. The adjustment of the white man in the Canal Zone.

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PART III

HUMAN NATURE

THE PRECEDING section has laid the scene for the drama of human experience. Biological heredity ushers the infant actors onto the stage which physical environment, the group, and culture have set. The dramatic action now begins, and the newborn babe is gradually transformed into a social person.

At birth the babe is a human animal. He is different from both lower animals and other human animals. He is an indivisible, identifiable, biological specimen; hence we call him an individual. But he lacks many things which the term human connotes. He cannot talk, he does not wear clothes, he has no manners, he lacks ideals. After birth, however, things begin to change. The child associates with other human beings and comes under the sway of their culture; he becomes a member of society and achieves human personality. Socialization is the term used by the sociologist to designate this process whereby the individual is converted into the person.

The first three chapters of this section undertake to show what human personality is and how it is achieved. Chapter V traces its relation to heredity; Chapter VI considers its relation to the group; and Chapter VII treats its connection with culture. These discussions all relate to the normal personality. The final chapter of this section, Chapter VIII: "Personality Disorganization," considers the problem of psychological breakdown, a matter of great social significance in our time.

V. HEREDITY AND PERSONALITY

WHAT CONTRIBUTION does heredity make to human personality? The most feasible way to find out is to observe the human baby shortly after birth, before the environment has a chance to influence him very much. To be sure, a child at birth is the result not of heredity alone but of three-quarters of a year of prenatal environment as well. A truer picture of man's biological inheritance would be furnished by knowledge of the genes of the fertilized ovum, but such knowledge is at present not available.

The situation is further complicated by the fact that the child's heredity is not completely revealed at birth. The color of a child's eyes, for example, is fixed by his heredity, yet two or more years may elapse before the final eye color is evident. Heredity likewise is responsible for sex determination, but the full flowering of the sex heritage is delayed many years until puberty. Heredity thus extends its influence far into life by virtue of this process called *maturation.* Maturation, however, takes place in an environment that is highly variable in certain particulars, such as food, temperature, and exercise. Growth is therefore affected not only by maturation but also by experience. This fact is shown in an interesting experiment involving twins,[1] one of whom (Johnny) was given special training at a child research station, while the other (Jimmy) was not. Johnny, who was chosen to play the active rôle, was the weaker and lighter infant at birth, but when he was 20 days old, he was encouraged to display his abilities, being stimulated at two-hour intervals to evoke activities within his scope, like lifting his head when in the prone position, or turning from his back to his side. Later he was encouraged to crawl, and even to swim, and still later to roller-skate. Jimmy, on the other hand, was kept in his crib except on periodic examination days. During the early months he was restricted no more than the average child, but it is possible that his later opportunities for

[1] MYRTLE MCGRAW, GROWTH: A STUDY OF JOHNNY AND JIMMY (New York: D. Appleton-Century Company, 1935). This experiment was carried on at the Normal Child Development Clinic, Neurological Institute, Columbia Medical Center, New York. From the twentieth day on, the babies spent seven hours a day, five days a week, at the clinic.

gross motor activities were less than those of the average child. As for food, both were given the same kind and quantity, but Johnny ate more, probably because of the increased physical activity and because he was encouraged to feed himself, while Jimmy was spoon-fed. Beginning with the seventh month, or the time he began to swim, Johnny gained more rapidly in height and weight and at the end of the experiment was both taller and heavier than his brother. Although Jimmy finally caught up to Johnny in development, the rates of maturation of the two boys were different because of their dissimilar environments and experiences.

Because it is affected by environment and experience, maturation is exceedingly difficult to isolate as a factor in growth. Therefore, although it cannot be gainsaid that maturation must be included in a complete account of the hereditary factor, the closer to birth any trait is observed the greater is the assurance that it represents the outcome of purely hereditary influences.

The equipment of the infant is very extensive, and there is no purpose in trying to record it here. Our interest centers chiefly in the parts that are closely associated with psychological experience, that is, mental and emotional behavior. Of course, the whole body may be concerned with a given function. This is shown, for example, by the fact that although the lungs serve the function of the intake of air, the proper exercise of these organs is affected by the condition of the thyroid gland. The organs for breathing are, in turn, not unrelated to psychological states. Despite the fact that the whole body may be involved in proper organic functioning, certain organs are more important for certain purposes than others. The nervous system and the glands of internal secretion are the most important inherited mechanisms for mental and emotional behavior.

Nervous and Glandular Systems

The nervous system is a mechanism capable of receiving and responding to stimuli. It receives impulses or sensations of light, color, sound, heat, cold, and pain by way of the eyes, ears, and skin. Various internal impulses are also received, particularly from the stomach and from the sex and excretory organs. Hunger may be aroused either by the sight of food or by chemical and motor activities within the stomach. The internal rhythms within man arouse the sex drive even as do external stimuli. It is important to think of man as responding to stimuli from

within as well as from the outside environment. The nerves transmit these impulses along fibers to a center in the spine or brain, where the impulses are "switched" to nerves of control emanating to the musculature and glands. Thus responses are achieved, such as, for instance, the withdrawal of the hand from pain, the batting of the eye, the placing of food in the mouth, the quickening of the heart beat, or a chemical reaction of the liver.

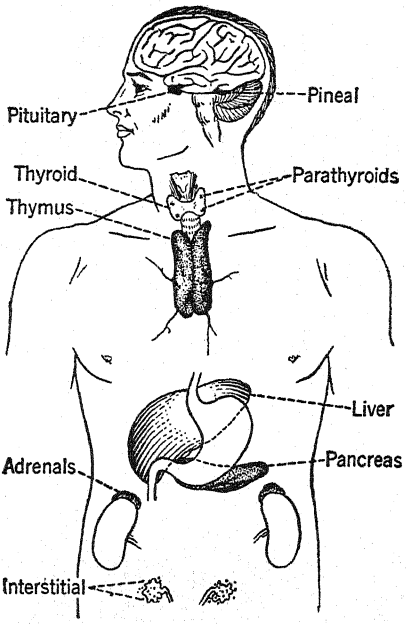


FIGURE 24. LOCATION OF THE DUCTLESS GLANDS

The glands of internal secretion are small and located in well-protected portions of the body. They were overlooked by early physiologists. Their influence on structure and behavior seems out of all proportion to their small size. This is especially true of the pituitary, which is popularly called the dictator of the system. From J. F. DASHIELL, FUNDAMENTALS OF GENERAL PSYCHOLOGY *(Boston: Houghton Mifflin Company), p. 214.*

The glands of internal secretion also have the capacity for stimulating behavior. These glands, the thyroid, pituitary, thymus, adrenal, parathyroid, gonad and pineal, pour chemical substances peculiar to each, called hormones, directly into the blood stream, producing reactions similar to those produced by other stimuli through the nervous system. Thyroxin, the hormone from the thyroid gland, centered near the larynx in the neck, increases the rate of breathing. Adrenalin, the hormone of the adrenals, located near the kidneys, increases the blood sugar from the liver and increases the rapidity of clotting of the blood. One of the hormones of the pituitary gland, located near the center of the head at the base of the brain, stimulates sexual growth and activity. The hormones, whose action is chemical, are associated with the mechanism of the nervous system in the completion of an act.

THE CONDITIONED REFLEX

The nervous system is comparable to a telephone exchange. Messages are carried to a central system — the brain or spinal column —

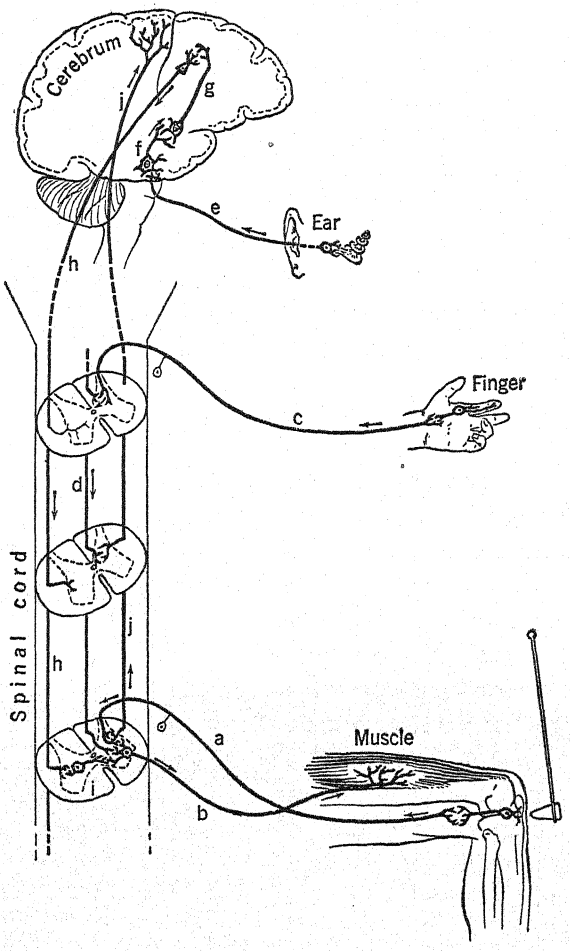


FIGURE 25. A SIMPLE REFLEX ARC AND ITS COMPLICATIONS

The knee jerk as a reflex involves neurons a *and* b, *which are connected at one level of the cord. The reflex act is influenced, however, by other neural processes, such as impulses from pressure on finger, conducted along the afferent fiber* c *and the descending fiber* d*; or by impulses from ear, passing along afferent fibers* e *and* f *to a relay point (thalamus) where* g *is excited and conducts to a place in the cortex of the cerebrum, at which point a descending fiber* h *transmits the impulses to the proper level of the cord to excite* b.

Meanwhile the incoming afferent impulses on a *also excite ascending fiber* j *to produce other less reflexive responses to the original stimulus, such as when the subject responds by saying "Now." (To avoid confusion, lines to represent the various more complicated responses are not added to the figure.)*

Figure very incomplete. Relative proportions not preserved.

Each fiber represents very many of its kind.

From J. F. DASHIELL, FUNDAMENTALS OF GENERAL PSYCHOLOGY *(Boston: Houghton Mifflin Company), p. 270.*

then relayed to their proper destination. In the very simplest behavior, such as the eye wink or the knee jerk, an afferent nerve transmits an impulse from a receptor to a central connection, from which the impulse passes through an efferent nerve fiber to an effector. The unit of this type of action is called the *reflex arc.*

Little of human behavior is so simple as this. More complicated behavior is possible because two or more afferent nerves may connect with two or more efferent nerves. The number of possible interconnections is enormously great, for the nervous system in this regard approximates the telephone system, in which it is theoretically possible for any two stations to be brought into contact with each other. This situation makes it possible to condition a reflex, that is, to have the reflex action produced by a stimulus other than the one which naturally evokes the reaction. Behavior normally stimulated by A comes to be induced by B as well, after B has been associated with A in the original stimulation. The familiar experiment of Pavlov illustrates this process. A dog's

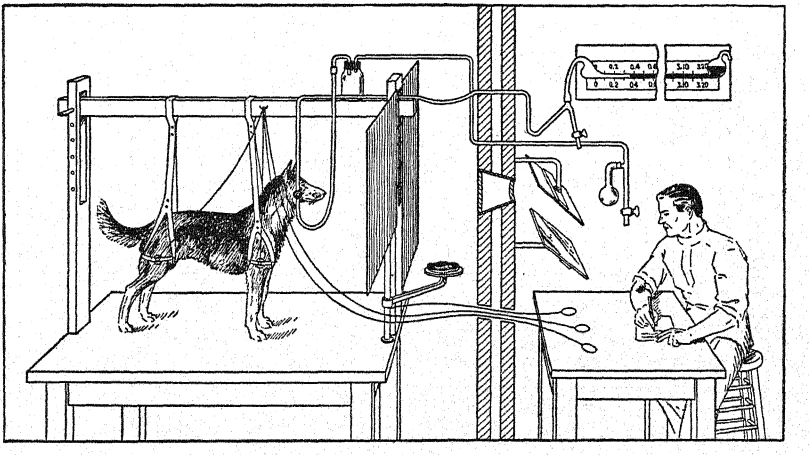


FIGURE 26. PAVLOV'S ARRANGEMENT FOR A SALIVARY-CONDITIONED REFLEX IN THE DOG

The dog was shown a plate of food and responded by copious flow of saliva. The ringing of a bell, when food was not presented at the same time, did not cause any flow of saliva. Then the bell was rung at the same time that food was presented to the dog. This was repeated a number of times. Later when the unconditioned stimulus, the food, was not presented, but the bell was rung, the conditioned stimulus, saliva flowed from the mouth of the dog. The figure above shows the experimenter measuring and controlling the stimuli. A very large number of the responses of animals and man are learned through some such conditioning process. From J. F. DASHIELL, FUNDAMENTALS OF GENERAL PSYCHOLOGY *(Boston: Houghton Mifflin Company), p. 380.*

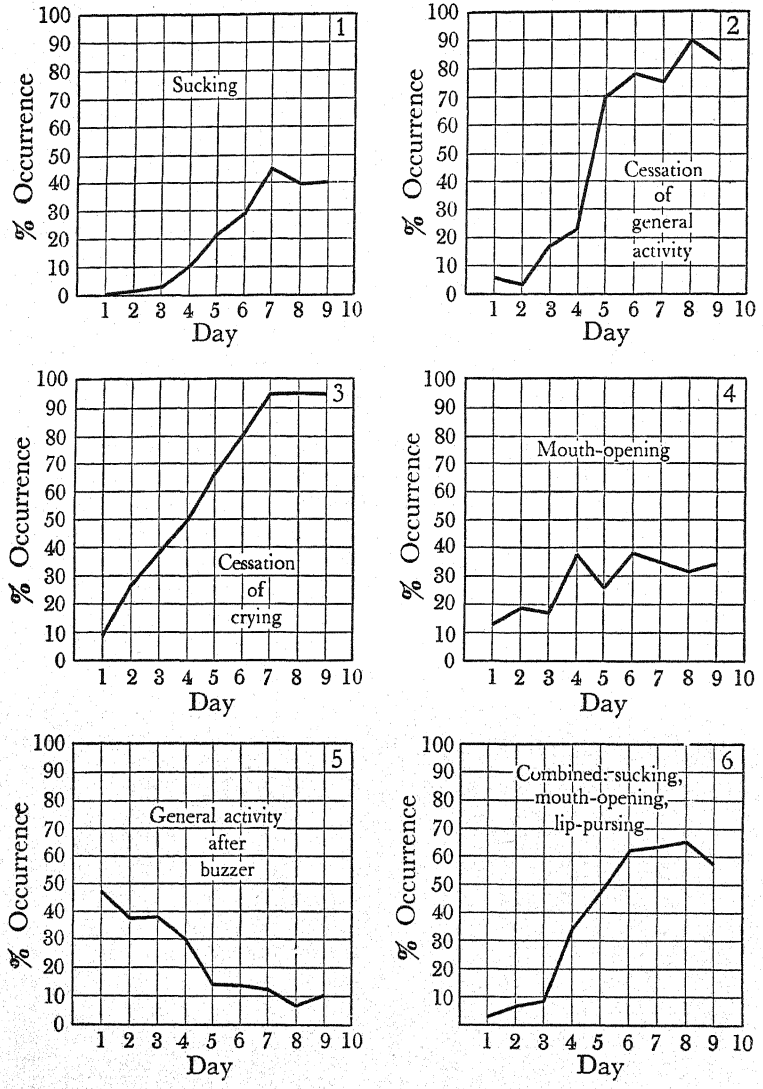


FIGURE 27. THE ESTABLISHMENT OF CONDITIONED RESPONSES IN NEWBORN INFANTS

A buzzer was sounded at the same time an unconditioned stimulus was presented to the infant. These curves show the day to day changes in response to the buzzer in terms of percentages of the total number of occasions that the behavior in question was observed. For example, the first curve shows that the sound of the buzzer did not elicit sucking movements on the first day, and only occasionally on the second and third days. But after the third day, sucking in response to the buzzer occurred with increasing frequency, until by the seventh day the sound of the buzzer aroused sucking movements on 45 per cent of all occasions. The other curves are to be read in the same way. From D. P. MARQUIS, "CAN CONDITIONED RESPONSES BE ESTABLISHED IN THE NEWBORN INFANT?" JOURNAL OF GENETIC PSYCHOLOGY, *39:479–92 (1931). Courtesy of Clark University Press.*

mouth normally waters at the sight of food but not at the ringing of a bell. But if, as in the Pavlov experiment, a bell is rung a number of times at the appearance of food, eventually saliva will flow from the dog's mouth at the ringing of the bell alone. It has likewise been shown that conditioning occurs in the human infant; indeed, it can be established very shortly after birth. In one experiment eight newborn babies were fed every four hours. First a buzzer was sounded for five seconds, then the nipple put into the babies' mouths, then the buzzer sounded for five seconds more. In general, only from three to six days were required to establish definite conditioned food-taking reactions, such as mouth and sucking movements, in response to the sound of the buzzer alone.[1]

The conditioned response [2] is probably the most important single key to human learning. A baby shows no fear of animals but does of loud, harsh noises, if they are unfamiliar and unexpected; but it may learn to show fear of a dog if a loud, harsh noise is made each time the baby sees a dog. The dog may call forth fear after only one trial. In a similar way a baby may come to fear the dark, or any number of different objects, by the method of the conditioned response. The tremendous variety of these conditioned responses in adulthood is impressive. One likes the color yellow which brings pleasant feelings because it was worn by a childhood sweetheart. Moonlight brings out the tender sentiments. Drums suggest war. Such associations make a very rich fabric out of experience for each one of us.

Drives

As has already been pointed out, the nervous system, operating through the medium of the reflex, is responsive to internal as well as to external stimuli. Certain internal stimuli, or *drives*, are an important part of the inherited equipment of the newborn babe. These drives are related

[1] D. P. Marquis, "Can conditioned responses be established in the newborn infant?" Journal of Genetic Psychology, 39:479–92, October, 1931.

[2] In the interests of simplicity, conditioning has so far been illustrated on the level of the reflex. However, as will be emphasized below, little of the behavior of the newborn infant is reflexive, that is, fixed and definite. Rather, most infant behavior is of a more general nature, consisting of diffuse responses to diffuse needs. Behavior patterns become more specific and definite only as the result of maturation and learning. On this account, it is usually more accurate to speak of the conditioned response than of the conditioned reflex, in connection with modifications of original nature due to learning. This point is important, for it emphasizes the plastic and indefinite nature of original human nature, and consequently the dominant part that learning plays in developing specific human personality traits.

largely to the organic needs of the individual, such as those for sleep, exercise, food, water, elimination, and sex activity. A pin stuck into the skin will hurt, without much reference to the internal condition of the body. But the internal stimuli of hunger, let us say, are relatively more important than the external stimuli. These drives provide a kind of dynamic urge, or push, to behavior. When an organic need is unsatisfied, an organic tension is set up which leaves the individual restless and impels him to bestir himself in the effort to satisfy the need. In the case of hunger, for example, the absence of food causes the walls of the stomach to contract, stretching the muscles and producing disagreeable sensations which lead to a state of general restlessness. This restlessness may be interpreted as a diffuse effort to achieve a goal, namely food. The drives are oriented with reference to goals.

While nature supplies the child with a set of tensions which must somehow be relieved, it remains for nurture to determine the ways in which these tensions will be managed. The craving makes one seek some sort of expression or goal, but it may be conditioned. Thus nature supplies the individual with a hunger drive, but experience determines how, when, and where it will be satisfied. There is great variation in the eating habits and attitudes of different children. One child will accept graciously whatever food is set before him, will eat his meal promptly and with relish. Another will just as regularly refuse what is offered, habitually dawdle, or regret the time that must be given to eating. The differences among children in habits of eating, sleeping, and the like suggest the readiness with which the drives may be conditioned. The point is important, for it shows the dominance of the learning process in the formation of human personality.

INSTINCTS IN HUMAN AND ANIMAL BEHAVIOR

Before modern science discovered the mechanism of the conditioned response as a major factor in learning,[1] it was customary for psychologists

[1] It should be noted that conditioning is here set forth not as the only method of human learning but as in all probability the chief method. "Whether all learning can be reduced to a single formula is a complex and difficult question upon which the evidence, though extensive, is by no means clear." (MURPHY, MURPHY, and NEWCOMB, EXPERIMENTAL SOCIAL PSYCHOLOGY, p. 156.) The mechanism of the conditioned response has been established largely on the infant level, but is still something of an hypothesis for such phenomena as memory, language, and thought, which play a prominent part in later learning. Still the great utility of the conditioned response in the former field makes it a very probable point of view in the latter. As Dollard has aptly put it (in correspondence with the authors), "No one knows in detail how conditioning helps build a personality, though it 'must' be so!"

to account for a great deal of human conduct in terms of instincts, defined as inborn tendencies to action.[1] Long lists of such presumed instincts were drawn up. Such common personality traits as gregariousness, imitation, pugnacity, and acquisitiveness were held to be the result of inborn dispositions. At the present time this type of explanation is largely discredited. It is much more in keeping with the evidence to explain such traits in terms of learning or the conditioned response. As we have seen, the child at first gives no indication of a gregarious impulse. He does, however, show hunger and a desire to have his hunger appeased. Since human beings satisfy the child's hunger, he learns to depend upon them, and consequently enjoys being with them. Gregariousness, it seems, is chiefly explained as the result of the conditioning of the hunger drive. There are many other kinds of satisfaction which help to build up a desire for group life, but the fact remains that gregariousness can be readily explained in terms of social experience. It may be concluded that much uniform human behavior which was once thought to be the automatic expression of inborn tendencies or instincts is now understood to be the result of learning.

Among the lower animals, instinct plays a large part in determining behavior; in certain species, the domination of behavior by inherited patterns is almost complete.[2] Ants, for example, have a highly socialized life determined by instinct. In founding a colony, the queen excavates a cell in the earth and remains entombed until the eggs develop. After the first batch of eggs is laid, the queen feeds the larvae until they pupate. The first individuals are workers who take charge of the colony, feed the queen and themselves, and tend the brood, thus freeing the parent to devote herself to oviposition. Certain ants, usually those that are physically larger, act as defenders of the tribe and in some cases use powerful mandibles for crushing seeds or prey. Smaller workers tend the brood, forage for food, make nests, and cultivate fungus beds. When the original colony becomes overcrowded, some queens and workers leave the nest to start colonies of their own. Ants do all these remarkable things not as a result of learning, but as a result of inborn capacities. Because they represent so completely the automatic working out of inherited patterns, these behavior patterns of ants show a minimum of

[1] Cf. L. L. BERNARD, INSTINCT: A STUDY IN SOCIAL PSYCHOLOGY (New York: Henry Holt, 1924).

[2] Cf. W. M. WHEELER, COLONY-FOUNDING AMONG ANTS (Cambridge: Harvard University Press, 1933); A. D. IMMS, SOCIAL BEHAVIOR IN INSECTS (New York: The Dial Press, 1931), chap. v.

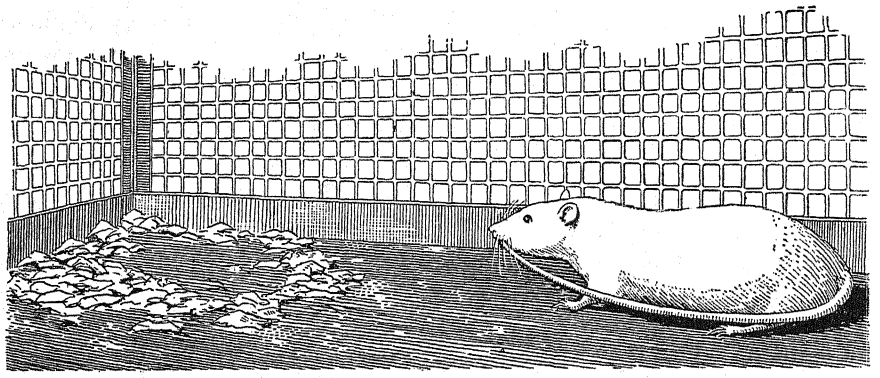


FIGURE 28. THE NEST-BUILDING INSTINCT

After using available materials (shavings, paper, etc.) for a nest, the caged parturient rat continues the search for further materials, and finding nothing, picks up her tail in her mouth, carries it back to the nest and deposits it on the nest materials. This "waltzing" back with tail in mouth may be repeated for half an hour or more. In one case where no nesting materials were provided, the pregnant female repeated this act over and over again during the 12 hours prior to parturition. M. STURMAN-HULBE *and* C. P. STONE, "MATERNAL BEHAVIOR IN THE ALBINO RAT," JOURNAL OF COMPARATIVE PSYCHOLOGY, *9:208 (1929)*.

variation. The uniformity of the ant colonies stands in striking contrast to the greatly varied behavior patterns in human communities. One ant colony is much like another, but there is a great difference indeed between a primitive community of a few families loosely organized as a hunting group, and a highly organized community of millions of families like New York City. The biology of the ant prescribes in detail what an ant colony will be like, but the biology of man exercises no such determinism.

Instinct is a term that applies more correctly to the lower animals than to human beings. The behavior of the animals is much more largely governed by inherited patterns. A newly hatched chicken will stand, walk, and peck at an object on the ground. A newborn babe is utterly helpless. The best performance the baby can give in the way of motor activity is a sort of random thrashing about of its legs and arms, and the mouthing and sucking movements already alluded to. In physiological terms we say that the organization of the nervous system is much less complete in the human baby at birth than it is in the chick.

Advantages and disadvantages of instinctive behavior. At first this lack of neural organization is a handicap to the human being, but later it becomes his greatest asset. Unlike the chick, the baby cannot shift for himself at birth. but because his actions are not fixed and predetermined,

he can learn to do things in a number of ways. Instead of a very simple and inflexible act like pecking at a grain of corn, the child acquires an extensive set of food habits. Eating, for human beings, may become an elaborate ritual. So with other behavior also. Man is not born with a building instinct such as birds have for nest making. From one point of view the birds have an advantage because they do not have to depend on experience or on other birds to learn. Each generation of birds can function independently without suffering any loss of nest-building skill. Man would be helpless in building a shelter if he could not rely on the accumulated experience of the group. An Eskimo caught in an arctic blizzard can put up an igloo in forty-five minutes if necessary, but he can do this only because he has learned how from others. If he had not been taught this knowledge, he would perish. He has no igloo-building instinct to help him.

On the other hand, the inherited facility of the bird works automatically and leaves little room for improvement. This is not to deny that the nests of birds are remarkable; they are often superior to the means of protection of many primitive peoples who have only such crude structures as lean-tos with which to protect themselves from the weather. But give man time and he will learn to build a shelter that far surpasses any that instinct can provide. Man has learned how to build a more durable and spacious shelter, and he also knows how to heat it, cool it, and ventilate it to his liking. Human beings learn to do an amazing variety of things precisely because they are not dominated by instinct, but instead are endowed by nature with drives that are flexible.

Emotions

Man is not only equipped with various drives to action but is also capable of experiencing certain feelings. The drives themselves have an affective aspect; we speak, for instance, of "feelings of hunger," "sex excitement," and the like. That human beings inherit feeling states is obvious, but not so clear is the exact nature of this inheritance. We are particularly interested in this section in the part biology plays in the more intense and profound affective states, the emotions, which are of such consequence for human happiness. What part does heredity play in equipping us with such feeling states?

EMOTIONAL BEHAVIOR OF INFANTS

After Watson's experiments [1] in 1919 it was thought for a long time that the infant was endowed by nature with three specific emotions: rage, fear, and affection. Watson found that restriction of the child's bodily movements, as by holding his arms or legs firmly, aroused a reaction which he called rage. Similarly, he observed that falling and loud noises induced fear. Pleasant stroking of certain parts of the body, he stated, brought a response not unlike that accompanying expressions of affection. More recent studies, however, throw some doubt on the specificity of the child's feeling responses. In one experiment, for example, motion pictures were taken of children stimulated in the Watson manner.[2] When the film was cut so the responses were separated from the stimuli, a group of psychologists was not able to match them properly. It is possible that adults read their own responses into the emotional reactions of infants. Heredity may give the newborn babe only a generalized capacity for responding emotionally against annoyance of one kind or another. The specific emotions come later. Even by the Watson formula it is clear that the infant has little in the way of emotional behavior. He learns to be afraid of few things or of many things, to respond angrily to many or few different situations, but the organization of emotional expression is quite rudimentary in the newborn babe.

THE CULTURAL PATTERNING OF EMOTIONS

We have only to observe the emotional expression of individuals in different cultures to acknowledge the commanding part that experience plays in the patterning of the emotions. Among the Andaman Islanders and the Maori of New Zealand there is copious shedding of tears when

[1] JOHN B. WATSON, PSYCHOLOGY FROM THE STANDPOINT OF A BEHAVIORIST (Philadelphia and London: Lippincott, 1919).

[2] M. and I. C. SHERMAN, "THE DIFFERENTIATION OF EMOTIONAL RESPONSES IN INFANTS," JOURNAL OF COMPARATIVE PSYCHOLOGY, 7:265–84, June, 1927; 8:385–94, December, 1928. In another experiment, by Pratt and others, on 66 infants, results were secured that seem to confirm the conclusions of the Shermans that no specific emotional responses are discernible in very young infants. In this study, the arms of the infant were pressed against the body and held firmly in place. A total of 358 repetitions were involved. In 58 per cent of the trials, the infants made no perceptible reaction, but remained passive. In 26 per cent, a brief period of activity was followed by one of inactivity. In 13 per cent of the trials, the arms flexed again, followed by other signs of activity; and in the remaining 3 per cent a brief period of quiet was followed by one of activity. K. C. PRATT, A. K. NELSON, and K. H. SUN, THE BEHAVIOR OF THE NEW-BORN INFANT, Ohio State University Contribution in Psychology, no. 10, 1930.

friends meet after a separation or when two warring factions make peace. The Japanese acknowledge with a smile the reproof of a superior. Many peoples make no outward show of grief at the loss of a beloved one, but the Chinese go to the other extreme on such occasions. Their *Book of Rites* contains an elaborate set of rules and regulations for the proper expression of grief in bereavement, "the technique of the mourning ceremonial." In another Chinese book, *Required Studies for Women*, the following advice is given: "If your father or mother is sick, do not be far from his or her bed. Taste all the medicine yourself. Pray your god for his or her health. If anything unfortunate happens, cry bitterly." Otherwise, "do not let your teeth be seen when you smile, and do not show your unhappiness easily." Chinese literature contains many references to the fact that people may die of anger. "His anger has risen so that he is ill of it and lies upon his bed and his life cannot long be assured." Klineberg cites the case of a Chinese who died of anger after losing a lawsuit.[1] Such evidence shows clearly that experience rather than natural endowment is chiefly responsible for the patterning of emotional expression.

Temperament

Some students of personality are of the opinion that temperament must be included among those traits which heredity contributes to the individual. Discussion of this point is likely to be somewhat unsatisfactory, however, because so little is known about it. It is usual to say that a person's temperament is his prevailing *mood*. By this definition temperament is a matter of emotional response, the underlying or characteristic feeling state of the individual. A common classification of temperaments is fourfold: the choleric, or excitable; the phlegmatic, or dull; the sanguine, or happy; and the melancholic, or sad. Individuals may, of course, possess combinations of these moods. Psychiatrists recognize in their experience a type of individual with a temperament called cyclothymic, alternating between elation and despair.

Are there inherited differences in temperament?

While some babies at birth are nervous and others are quiet and calm, it is difficult to know whether these temperamental traits are inherited.

[1] Otto Klineberg, "Emotional expression in Chinese literature," Journal of abnormal and social psychology, 33:517–20, October, 1938.

In individual cases such differences may be ascribed to circumstances attending the experience of birth; much may depend on whether the birth experience is an easy or trying one for the infant. There is also a little evidence suggesting that some prenatal conditions may be capable of affecting the nervous system of the child. But whether genetic factors are also operative is not clear. The glands are thought to be partly responsible for temperamental differences, and individuals differ in glandular makeup, but "practically nothing is accurately known as to the rôle of inheritance in transmitting supposedly different glandular types," [1] although of course the glands themselves are inherited. A case might perhaps be made out for such an inheritance if it could be shown that infants of certain races possess temperamental traits different from those of infants of other races. It does appear that South European children tend to be excitable and their time reaction quick, while North European children are more stolid and slower to respond, but unfortunately these differences are not observable in newborn infants. On this account we have no assurance that the behavior noted is not due to culture rather than to biology. As will be shown below, the glands are highly responsive to environmental influence.

TEMPERAMENT AND THE ENDOCRINE GLANDS

There is much evidence to show that behavior is greatly affected by the condition of the ductless glands. In rats, injections of certain hormones of the pituitary gland will produce sexual maturation in one half the normal time. The intelligence of cretins is greatly increased by the feeding of thyroxin. If one of the adrenals, so useful in the struggling activities of animals, is removed from a dog, his fighting abilities are reduced by one half. The removal of the gonads in a youth is said to account for personality characteristics of a eunuch. When the parathyroids, glands located near the thyroid which regulate the utilization of calcium, are defective, as in tetany, the individual is easily agitated and emotionally unstable.

Another question concerns the glands and the life cycle. Children have different personalities from the middle-aged and from the old. The glands of internal secretion vary during the course of a lifetime. The thymus is most active during childhood, and recedes later. The

[1] T. H. MORGAN, "THE MECHANISM AND LAWS OF HEREDITY," chapter 2 in HANDBOOK OF GENERAL EXPERIMENTAL PSYCHOLOGY, edited by MURCHISON (London: Oxford University Press, 1934), p. 133.

sex glands become active in late youth and during adulthood. There is a recession of much glandular activity among elders. It is possible that among the factors making for differences in personality between children and old people may be variations in the thymus, the gonads, and the pituitary. These glands of internal secretion have been called the tides of life, a picturesque phrase if not a scientific one.

THE INFLUENCE OF THE GLANDS ON PERSONALITY

In the light of such evidence as that just cited, when the question of how the glands affect personality is asked, the answer would seem to be in terms of a generalized emotional effect. The glands influence emotional potential. They help to determine whether an individual will, for instance, be vigorous or feeble, energetic or lethargic, in his reactions. Such differences in emotional response are important for personality, but it would be an error to hold, as endocrine-enthusiasts do, that the glands determine the whole personality, including such things as one's opinions, one's habits, and one's skills. It has still to be shown that the glands have anything to do with determining whether an individual will be altruistic or selfish, magnanimous or jealous, hospitable or niggardly, loyal or treacherous. It still remains to be shown how, if at all, the glands are related to memory, to suggestibility, to sympathy, and to the other similar traits that constitute personality. Exploration in this field is recent, however, and discoveries are occurring with rapidity. It would be unwise to make any very definite appraisals, at this time, of the rôle of the glands in personality development.

ENVIRONMENTAL INFLUENCE ON THE GLANDS

In concluding our discussion of the influence of the glands on personality, one additional observation should be made. It is fallacious to think that these agencies of internal secretion are wholly the result of heredity. They may be influenced by environment. The presence or absence of iodine in the soil and water affects the thyroid. Psychological experience may also be a potent factor in the functioning of the glands. A breed of rats with an inherently vicious disposition can be rendered docile by a laboratory method known as "gentling." [1] As for human beings, Crile presents evidence to show that in the case of certain individuals the adrenals are under excessive stimulation from the conditions

[1] F. S. HAMMETT, "OBSERVATIONS ON THE RELATION BETWEEN EMOTIONAL AND METABOLIC STABILITY," AMERICAN JOURNAL OF PHYSIOLOGY, 53:307–11, September, 1920.

of city life.[1] The resultant strain and worry can be alleviated, he reports, by severing afferent nerve connections to the adrenals. The functioning of the gonads is also somewhat affected by experience; particularly important are the experiences of childhood which influence the glands before they mature. In all probability additional insight into the effect of experience on glandular activity will be provided by the further progress of endocrinology.

CAPACITIES

INTELLIGENCE

There is no doubting the fact that individuals are provided by heredity with varying measures of capacity for intelligent behavior. The existence of idiots, imbeciles, and morons whose deficiency cannot be accounted for by environmental causes is sufficient proof that heredity endows individuals with varying degrees of mental capacity. However, as was pointed out in Chapter III, the intellectual height which individuals actually attain in life is, except for those on the lowest levels, in part the result of environment and training. This fact makes it inaccurate to speak of an individual's intelligence as if it were entirely biological in origin. The social component in general intelligence should be kept in mind by the reader in estimating the importance of intelligence for personality.

THE RELATION OF GENERAL INTELLIGENCE AND PERSONALITY

What is the connection between mentality and personality? There is a direct connection between these two factors which shows itself in the individual's responsiveness. We say of one person that he is bright and of another that he is dull. There is a generalized degree of alertness that individuals manifest, for which a condition of the cortex of the brain is chiefly responsible, just as there is generalized emotional potential based mainly on the state of the glands.

Such generalized differences in alertness are, of course, important for personality, but it would be a mistake to believe that these differences

[1] GEORGE W. CRILE, DISEASES OF MAN PECULIAR TO CIVILIZATION (New York: The Macmillan Company, 1934). Along somewhat similar lines, it is interesting to note that blood pressure tends to seek its cultural level, so to speak. The blood pressure of white men in China drops until it approximates the Chinese average, while the blood pressure of Chinese students in the United States tends to rise to the general American level. The climatic factor is not eliminated by this simple comparison, though the climates of China and of the United States are not greatly different.

are in turn directly responsible for other more specific personality differences, such as the particular habits and attitudes that individuals possess. On the contrary, there is abundant evidence to demonstrate that personality traits are quite independent of intellectual traits. Delinquents and criminals have a different sort of personality makeup from those who abide by the law. The transgressors have less inhibition, less respect for the rights of others, less regard for the mores, than do the non-criminals, so that we say criminals are undesirable characters. But criminals are not significantly different from non-criminals in test-intelligence. This has been shown by a number of studies, notably by Murchison's comparison of 3,942 native-born white criminals in penitentiaries in five states with 44,223 Army draftees taken from the same five states.[1] The criminal group was found to be superior to the white draft group, but the difference was slight. Juvenile delinquents have likewise been found to have much the same intellectual ability as non-delinquents of the same cultural and economic level. Again, when large numbers of children were put through a series of character tests of a practical, everyday sort, designed to measure such behavior as lying, cheating, stealing, cooperativeness, persistence, and inhibition, only low correlations with I.Q. were obtained.[2] Similar attempts to study the relation of intelligence to emotional stability have yielded only negative results. The scores of 694 college freshmen on an intelligence test devised by the American Council on Education and on Thurstone's Personality Schedule, a test of neurotic tendency, gave a correlation of only .037.[3] Nor have efforts to correlate intelligence with particular personality factors, such as introversion and extraversion, ascendency and submission, changed the picture. In one study, intelligence correlated .0008 with assertiveness.[4] The findings leave no doubt as to the independence of personality and intellectual traits, certainly within the limits tested.

Why should this be so? The reasons are many, but a principal one is that personality is much less dependent on genetic factors than is general intelligence. The relative independence of personality from genetic factors is shown, for example, by the fact that a person's attitudes and

[1] CARL MURCHISON, CRIMINAL INTELLIGENCE (Worcester, Mass.: Clark University, 1926).

[2] H. HARTSHORNE and M. A. MAY, STUDIES IN DECEIT (New York: The Macmillan Company, 1928), Book I, p. 286; Book II, p. 220.

[3] L. L. and T. G. THURSTONE, "A NEUROTIC INVENTORY," JOURNAL OF SOCIAL PSYCHOLOGY, 1:3–30, February, 1930.

[4] I. E. BENDER, "ASCENDENCE-SUBMISSION IN RELATION TO CERTAIN OTHER FACTORS IN PERSONALITY," JOURNAL OF ABNORMAL PSYCHOLOGY, 23:137–43, July–September, 1928–29.

habits may change radically while generally his test-intelligence remains practically constant. All of us have seen such changes in men and women who have come through a serious crisis, such as an unhappy marriage and divorce, extreme financial reversal, or acute illness. In religious revivals, far-reaching changes in personality sometimes occur with astounding suddenness.[1] For an explanation of personality traits we look, then, to the influence of experiential factors, such as the kind of relations one has with one's family, friends, teachers, fellow-workers, and neighbors. As we shall see more explicitly in the next chapter, these are the dynamic factors in the formation of personality.

PERSONALITY TRAITS OF THE FEEBLE-MINDED

The way in which environmental influences operate to produce personality traits is interestingly brought out in the case of the feeble-minded. They are commonly believed to be doomed by their condition to a life of dependence, since it is thought they are necessarily lacking in the ability to acquire such personality traits as industry, self-reliance, and dependability. However, with modern scientific handling, many people with deficient intelligence achieve stable, useful, wholesome personalities. For instance, a feeble-minded boy who had been trained at a colony for the mentally deficient and then placed out to work on a farm was visited by the supervisor, who asked him if he liked his work. The boy complained that he was unhappy because he had been drafted by the farmer's wife to do housework, whereas he had been assured that he would be obliged only to work about the farm. This was a violation of the conditions under which the boy had been placed out, so the superintendent asked the boy to report at the colony the next day to be reassigned. The boy replied that he could not come then because there was much work to be done, the farmer was ill, and it would not be right to leave him in the lurch. In another place, a twenty-four-year-old boy with a mental age of eight and a serious speech difficulty would go out and help the neighbors with their farm work rather than be idle while waiting for a work assignment.[2] These boys had been taught skills which would permit them to be useful members of society. In addition, they had had inculcated in them certain attitudes and standards such as loyalty, dependability, and integrity. These and many other feeble-minded boys

[1] Cf. H. BEGBIE, TWICE-BORN MEN (New York: F. H. Revell Company, 1909).

[2] C. BERNSTEIN, "COLONY AND PAROLE CARE FOR DEPENDENTS AND DEFECTIVES," MENTAL HYGIENE, 7:449–71, July, 1923.

with the same training show personality traits which are like those of many normal and superior individuals. On the other hand, many individuals with normal and even superior mentality are lacking in these traits of character. The presence of such personality characteristics is due less to mental capacity than to social experience. This fact is true for all cases except those on the very lowest levels of mentality, for, as has already been indicated, those of the lowest levels cannot profit by even the most propitious environment. The influence of intelligence on personality operates in part through culture to determine the individual's habits and attitudes; therefore, variability in social opportunity can overshadow variability in general intelligence in determining personality traits.

SPECIAL APTITUDES

In concluding our inventory of the equipment which heredity supplies. mention should be made of the variations in capacity for certain activities which individuals show. Some individuals are highly talented along particular lines, while others are grossly deficient. Some become brilliant musicians; others, even after repeated hearings, cannot tell one song from another. Some can do complicated arithmetic problems in their heads; others with the help of pencil and paper cannot add a simple column of figures. Samuel Rzeszewski moved his chessmen to a world's championship before he was ten. Mozart, at the age of four, amazed his family by going up into the garret and playing on the spinet, without previously having had any instruction. Some of his compositions were written in his childish hand at the age of five. Talents such as these have been called special capacities, and their lack special deficiencies, because they are not necessarily related to general intelligence. A child may have a high I.Q., yet have no knack for working with machines. The activities for which special capacities and deficiencies are inherited include drawing, music, mechanics, and athletics.

THE DEVELOPMENT OF SPECIAL CAPACITIES

Although heredity may endow the child with a special capacity for certain activity, the possession of this gift is in itself no guarantee that it will find full expression. Two additional things are necessary if the talent is to be realized. The prevailing culture must look with favor on the talent, and the talented individual must have training and opportunity for self-expression. There must be at least an occasional

individual among the Eskimo people who has the special capacity for arithmetic and mathematics. This capacity counts almost for naught among the Eskimos, because in their culture mathematics is insignificant. In the same way a child with a special capacity for musical expression would not have an opportunity to show his talent in a society which was either indifferent or hostile to music. But even where the culture is favorable, training is necessary for the development of special capacities. There are many individuals in our society with special endowments which are never developed. In one large American university, all the sophomores were given the Seashore Musical Aptitude Tests at the beginning of a required course in music appreciation. The two students who ranked highest on these tests were not musicians or students of music; they were two boys who had never had any musical training. Clearly there is much undeveloped talent in the population.

THE RELATION OF SPECIAL CAPACITIES AND PERSONALITY

The effect of special mental capacities upon personality would seem to be largely indirect, as in the case of general mentality. Where the culture is favorable, a child's special capacities are likely to be reflected to some degree in his activities and interests. Some children, for example, spend a great deal of time with construction sets and can scarcely be torn away from them, while other children cannot be persuaded to give such building toys any attention whatsoever. Later on in life the choice of career may be influenced by likes and dislikes which rest on special abilities and disabilities. Thomas Edison's career was doubtless determined by his mechanical genius, as Babe Ruth's was by his extraordinary eye-arm co-ordination and athletic prowess. The choice of an occupation affects personality, for tied up with each type of work are attitudes and habits peculiar to it. The lawyer in certain respects differs in his personality from the doctor, and both are unlike the engineer.[1]

Special abilities affect personality indirectly through the way they are appreciated by the group. A person who has a special talent of some sort is likely to be conspicuous because of it. He is a marked person. If he is reared wisely by his guardians he is likely to develop a personality grounded on self-confidence and self-pride. On the other hand, a gifted person runs the danger of becoming maladjusted if he does not have

[1] Cf. ARTHUR E. BRIGGS, "SOCIAL DISTANCE BETWEEN LAWYERS AND DOCTORS," SOCIOLOGY AND SOCIAL RESEARCH, 13:156–64, November, 1928. This study finds that, in general, doctors speak little, are reserved, dignified, and genial, while lawyers live their lives in words, are mandatory, aggressive, and disputative.

normal social life as a child. Over-exploitation of a child's talent by too ambitious or ignorant parents frequently leads to bad results. As to the child who has a special deficiency, he runs the risk of developing a sense of personal inferiority. An individual endowed with a special gift or special deficiency is set apart from other individuals and so stands greater chances of developing a unique personality.

Constitutional Differences

Individuals differ also in appearance and in body build. A person may be tall or short, thin or stout, handsome or ugly. An individual's constitution may not be an indication of his hereditary endowment alone, since physical development is affected by many environmental conditions, such as disease, accident, and the food one eats. A defect due to infantile paralysis, for example, is not to be considered an inherited trait. This qualification apart, however, it is still true that heredity may play a determining part in providing an individual with a particular kind of constitution. This being so, the question turns on what relation, if any, there may be between physical constitution and personality.

ANATOMICAL TRAITS AND PERSONALITY

There have been numerous attempts to show a direct causal relationship between physical constitution and personality. Two kinds of approaches to the problem need to be indicated. There are studies which purport to show a connection between an individual's anatomical characteristics and his social traits. An early example of this kind of approach was the work of Lombroso [1] on criminals. He contended that his measurements showed that certain physical traits were related to criminal behavior. The shape of the head, or even the configuration of the ear, he asserted, was an index of criminal predilection. At the present time it is generally admitted that Lombroso failed to make his case; it is now appreciated that crime is on the whole a social product.

In spite of the discrediting of Lombroso's hypothesis, belief in such cults as phrenology and palmistry continues in uninformed circles. When this section was being written, a newspaper published an item

[1] Cesare Lombroso, L'uomo delinquente (Torino: Fratelli Bocca, 1896, fifth edition). Lombroso was professor of psychiatry at Pavia, director of the asylum at Pesaro, professor of forensic medicine and psychiatry at Turin, and finally professor of criminal anthropology at Turin.

describing a new invention, the "psychograph," which "instantly measures 32 areas of the brain, sorts, classifies, and indicates correctly 160 ratings of 32 different faculties, points out one's talents, abilities, and weak and strong characteristics."

Another approach to the problem is represented by the work of Kretschmer.[1] His examination of types of insanity led him to the conclusion that there was a correlation between bodily types and temperament. Individuals suffering from the manic-depressive type of insanity, he thought, tended to possess what he called the pyknic type of constitution: a large, barrel-shaped body, short legs, and a broad, full, and fleshy face. He thought that schizophrenia was found more frequently among those with the ascenic type of body, characterized by a slender, narrow trunk, long legs, and a narrow, angular face. It is accordingly Kretschmer's theory that manic-depressives and schizophrenics are merely extremes of a personality differentiation that occurs in so-called normal persons. By means of a collection of photographs Kretschmer extended this theory to hold that the famous philosophers of the past were generally ascenic, while most of the celebrated scientists tended to be of the pyknic type. The pyknic types, moreover, were inclined to be extroverted, that is, disposed to have their attention turned upon the outside world; whereas the ascenic types were introvertive, unskilled in associating with others and highly introspective. To date, Kretschmer's interesting speculations have not been tested by a sufficiently large number of cases or by adequate measurements. Photographs may be good for originating such hypotheses, but actual measurements are required for proof.[2]

PERSONALITY A FUNCTION OF SOCIAL SITUATIONS

If personality traits are correlated with biological structure, as the Kretschmer theory holds, then personality traits should be as definite and invariable as biological traits. This is not the case. When may we

[1] E. KRETSCHMER, PHYSIQUE AND CHARACTER (New York: Harcourt, Brace and Company, 1925).

[2] Studies which tend to corroborate the Kretschmer theory have utilized only extreme manic-depressive and schizophrenic patients. (D. G. PATERSON, PHYSIQUE AND INTELLECT (New York: Century Company, 1930, p. 283.) Morton, studying 62 normal individuals, found no significant relation between body build and certain measurable normal variations in personality tendencies. (N. W. MORTON, "PERSONALITY TENDENCIES AND PHYSIQUE," JOURNAL OF ABNORMAL AND SOCIAL PSYCHOLOGY, 30:439–42, January, 1936.) Negative findings are reported in an even more extensive study of 153 college men and 79 college women. (O. KLINEBERG, S. E. ASCH, and H. BLOCK, "AN EXPERIMENTAL STUDY OF CONSTITUTIONAL TYPES," GENETIC PSYCHOLOGY MONOGRAPH, 16:145–221, 1934.)

say of someone that he has the personality trait of perseverance? A person may show persistence in one situation and not in another. The trait of persistence is thus best defined in connection with particular situations. The same thing is true for other traits. It has been shown that children who have a reputation for being trustworthy may cheat if the temptation is great enough,[1] or a child may be scrupulously honest in some situations and dishonest in others. Figure 29[2] shows the rating of a particular girl on twenty-one different tests of honesty. According to popular notion it is thought that if she were honest, she would react honestly in all situations. This, however, was not true. The girl deviated from considerably above average in the honesty of her reactions to some situations to very much below average in others. This example indicates that personality traits are not fixed but are simply functions of particular social situations. Biological traits, such as sensitiveness to heat or ability to see, do not vary in this way. The definition of sight is in terms of bodily structures and not in terms of group situation, though sight may be trained to be selective.

That personality is a function of particular social situations is indicated also by changes that individuals undergo in personality, while their constitution remains unchanged. Elsewhere[3] the case of Helen Keller is cited. Her personality was greatly transformed at the age of seven when she suddenly realized that all things have names and that by learning the proper symbols she could share thoughts with others. Her constitution did not change; she continued to be blind and deaf, as she had been since early childhood, but she became a strikingly different sort of person.

Even if further research should show that certain personality traits are linked with the physical constitution, it would still be necessary to refer back to an individual's life situations to see how the traits express themselves. Consider, for example, courage. By courageous persons are meant those who frequently show courage in many social situations. Courageous persons are, however, fearful and cowardly under certain conditions. Courage may some day be found to be associated with the adrenal glands, and anger with the ganglia at the end of the brain-stem, but these biological factors would give no clue as to whether an indi-

[1] H. HARTSHORNE and M. A. MAY, STUDIES IN DECEIT, Book I, p. 286; Book II, p. 220.

[2] H. HARTSHORNE, M. A. MAY, and F. K. SHUTTLEWORTH, STUDIES IN THE ORGANIZATION OF CHARACTER, vol. III of STUDIES IN THE NATURE OF CHARACTER (New York: The Macmillan Company, 1930), p. 291.

[3] Chapter VII, "Culture and Personality."

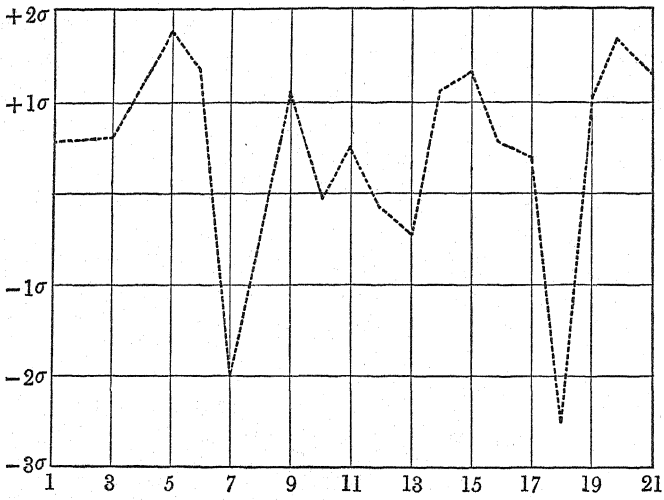


FIGURE 29. HONESTY PROFILE, SHOWING THE VARIABILITY OF THE SUBJECT

This girl was given 21 tests for honesty and the chart shows quite clearly that her honesty was very marked in some situations, while she was quite dishonest in others. Honesty as a trait seems to depend somewhat on the situation. Adapted from HARTSHORNE, MAY, AND SHUTTLEWORTH, STUDIES IN THE NATURE OF CHARACTER, III, "STUDIES IN THE ORIGIN OF CHARACTER," *p. 291 (New York: The Macmillan Company, 1930).*

vidual would or would not show courage in a specific situation, such as on the battlefield. In such a situation we must turn to social experience rather than to biology for an explanation of the personality trait.

INDIRECT INFLUENCE OF PHYSIQUE ON PERSONALITY

While little direct connection has been established between specific constitutional and personality factors, the situation is different for the indirect influence of physique. Ziegfeld, originator of the famous "Follies," used to say that the most beautiful girls in his chorus were the poorest dancers. They had no great urge to practice long hours at dancing, since their beauty alone brought them a great deal of attention. Beauty may, of course, depend somewhat on factors other than the genes, such as proper diet, good health, and the skill of one's hairdresser and cosmetologist, but it is essentially built out of an hereditary trait. The hereditary trait, however, is only indirectly responsible for such personality traits as self-assurance and poise that flow from beauty. It is the group or culture that admires the physical trait and gives it prestige value. Societies vary greatly in the constitutional traits that are deemed

attractive. Most primitive peoples value obesity in women very highly. In some places the belle of the community is a woman so heavy she cannot support her own weight. In our own society, at present, a lithe figure is thought to be attractive, but this was not always so, as the paintings in art galleries indicate. The influence of physique on personality is, then, largely indirect, operating through the valuation placed by the group on constitutional traits.

THE CASE OF THE DIONNE QUINTUPLETS

In concluding this chapter on the contribution of heredity to personality, it may be illuminating to refer to recent studies of the Dionne quintuplets.[1] These girls make ideal subjects for investigation on the point under consideration, since they are identical in genetic constitution. They represent the splitting of a single fertilized egg, which means they have identical or nearly identical heredity. If personality is a direct consequence of hereditary tendencies or traits, then these five sisters should have personalities that are identical, or at least personalities that are very much alike. But even at the tender age of three years, when the studies referred to here were completed, they showed quite distinct personalities. The personalities of the five sisters were measured by three tests, designed to ascertain "social success," "social popularity," and "social interest." The social success score was the ratio of the number of times each child attempted to get a response from one of the others to the number of successes; the social popularity score was the ratio of the number of times each child attempted to open social negotiation with the others to the number of times the others sought to do the same with her; and the social interest score represented the ratio of the number of times each watched the others to the number of times she was watched by the others. The scores for the five sisters on these three tests are as follows:

TABLE 4. PERSONALITY SCORES OF DIONNE QUINTUPLETS

	Test I Social Success	Test II Social Popularity	Test III Social Interest
Annette	1.3	.8	2.7
Cecile	1.3	1.2	1.8
Emilie	.9	1.0	.6
Marie	.9	.7	.4
Yvonne	1.8	1.6	1.0

[1] WILLIAM E. BLATZ, THE FIVE SISTERS. By permission of William Morrow and Company, Inc., and J. M. Dent & Sons, Ltd. Differences in performance by the five sisters on intelligence tests were slight.

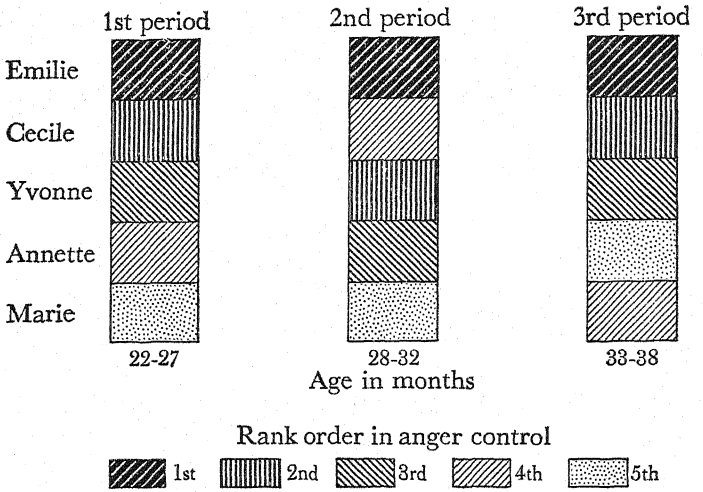


FIGURE 30. THE DIONNE QUINTUPLETS: RANK ORDER IN ANGER CONTROL, AT THREE AGE LEVELS

The outstanding performance in anger control is turned in by Emilie, who is far in advance of her sisters in this respect. It will be noted, however, that there is considerable variation in the ranking of the quintuplets in anger control at the three periods. If heredity were the determining factor, there would be no such variations in emotional control among the quintuplets, for they have "identical" heredity. Adapted from WILLIAM E. BLATZ, THE FIVE SISTERS (*New York: Morrow, 1938*).

These tests show personality variations of 100, 130, and 600 per cent. Measurements of many constitutional and biological traits of the quintuplets, on the other hand, give a maximum variation of only 10 to 15 per cent. It seems probable, therefore, that the variations in the personality traits of the five girls are in excess of those that can be accounted for in terms of biological inheritance. In other ways as well the girls show striking personality differences. Emilie, at the age of three, was far ahead of her sisters in control of anger, while Annette and Marie showed anger most frequently. Emilie likewise showed less fear than any of the others in social situations engendering fear. Emilie showed the least tendency to react emotionally toward her sisters. For such reasons as these, the investigator characterized her, at age three, as "independent, self-assured." Marie was the "baby" of the group, and Yvonne "the older sister." Cecile is described as "socially interesting" and Annette as "socially aggressive." These differences in five girls with identical heredity is all the more striking because they lived in a highly regulated and uniform environment.

SUMMARY

What does heredity contribute to human personality? Clearly the rôle of heredity is not to develop human nature alone and unaided, but to furnish materials out of which experience will mold the personality. Although this raw material includes the whole human body and all of its mechanisms, certain biological traits are more significant than others in the bearing they have upon personality. The more important mechanisms are the nervous system, the ductless glands, the organic drives, the emotions, and the general and specific capacities for mental behavior.

In so far as these materials are variable they may lead to differences in personality. Extreme individual differences in intelligence, for example, are readily reflected in personality. Pronounced variations in intelligence, as in the case of the idiot and imbecile, are such as to leave an indelible stamp on personality. Extreme hereditary variations, however, are rare. Most people have normal intelligence. Where biological differences are not marked or decisive, environmental factors have greater opportunity to influence the personality.

The hereditary influences upon personality are both indirect and direct. Heredity contributes to personality indirectly through group valuations of genetic traits. When, for instance, a particular type of physique is deemed beautiful by society, this valuation promotes personality traits such as self-pride and self-assurance in the persons having the approved type of physique.

The direct effects of heredity upon personality are of limited scope and significance. They are responsible for such general aspects of personality as the degree of emotional drive and mental alertness. Heredity furnishes the materials, but experience determines the way they will be used. Hunger is a mechanism supplied by nature, but the habits and attitudes built up around hunger are due to experience. Likewise the emotions are inherited, but the use which is made of them depends on circumstances and training. An individual may be energetic because of his heredity, but whether he is active in his own behalf or in behalf of others is a matter of his training. Moreover, whether he exerts himself, for example, in making money or in scholarly activity is also dependent on his nurture. Social experience is the factor which molds the dynamic biological

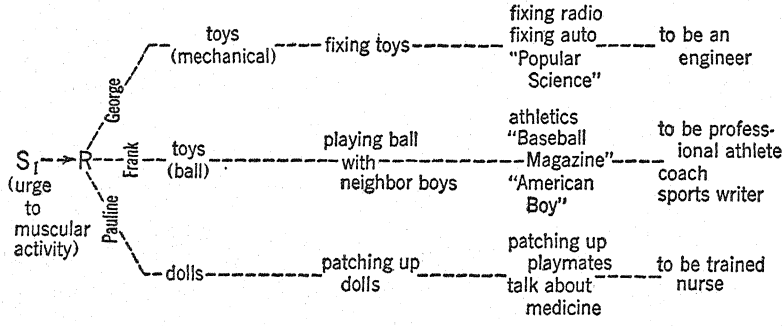


FIGURE 31. OCCUPATIONAL DEVELOPMENT FROM CHILDHOOD TENDENCIES

A few selected steps in the development of interests out of one arbitrarily chosen biological tendency. The divergence of lines of development is due to differences in environmental opportunities and no doubt also to intrinsic differences in the three personalities. From J. F. DASHIELL, FUNDAMENTALS OF GENERAL PSYCHOLOGY (*Boston: Houghton Mifflin Company*), *p. 123.*

heritage of the individual into a personality of specific attitudes and habits.

Although an individual's social experience is inclusive of a number of things, the two factors which are of the greatest consequence for his personality are his group and cultural contacts. The next two chapters take up in turn the relation of other persons and of the social heritage to human personality.

QUESTIONS FOR DISCUSSION

1. Why is it so difficult to separate the hereditary factor in personality?
2. Why is the concept of the conditioned response so important for a sociological approach to the study of personality?
3. Is fear of the dark inherited? If not, how is it acquired? What process is involved?
4. How valid is the instinct theory of human behavior?
5. Why is hunger called a drive? What determines how drives are satisfied?
6. How do the glands affect personality?
7. Can cowards be made brave by treating their adrenal glands? Defend your answer.

8. Do extremes in intelligence tend to have more influence on personality than variations in the middle range? Why or why not?
9. Why do phrenology and palmistry meet with popular favor? Do they contain a measure of truth?
10. What attempts have been made to relate constitutional differences to psychological characteristics? How successful have these attempts been?
11. What is the significance for personality of special capacities in music, art, mechanics, and the like?
12. Children are often said to resemble their parents in sociability and generosity. Are these resemblances due to biological inheritance or social contact?

TOPICS FOR REPORTS

1. Recent criticism of the concept of human instincts.
2. Recent studies of the emotional responses of infants.
3. The experimental conditioning of the responses of newborn infants.
4. Some recent findings in endocrinology.
5. The relation of physical handicaps to personality as exemplified by the cases of Helen Keller and Laura Bridgman.
6. Evaluation of the case for inherited racial differences in temperament.
7. A case study of the effects of physical appearance on personality.
8. Relative rôles of genetic factors and environmental motivation in the production of musical genius.

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A scholarly work in the general field of psychology, from the behavioristic point of view. The principles and generalizations presented are supported with a wealth of experimental evidence.

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Chapter III, "THE BIOLOGY OF MOTIVES," *presents the results of much experimental work on the subject. Mr. Murphy's* GENERAL PSYCHOLOGY (*New York: Harper and Brothers, 1933*) *and* A BRIEFER GENERAL PSYCHOLOGY (*New York: Harper and Brothers, 1935*) *present clear up-to-date accounts of what is known about heredity's contribution to man's nature.*

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The most complete study yet made of identical twins separated at birth or in early childhood. Other twins are also measured extensively as to psychological traits.

PAVLOV, I. P., LECTURES ON CONDITIONED REFLEXES. New York: International Publishers Company, 1928.

This translation of the great Russian's work gives an account of this basic mechanism of conditioning in forming the habits of learning, which contribute so powerfully to personality.

VI. GROUP AND PERSONALITY

BIRTH IS the signal for experience to begin its work of converting the biological individual into the social person. How is this change accomplished? As the reader has just seen, the equipment with which the baby is born includes reflexes, drives, feelings, and capacities. At birth these raw materials are conveyed into the factory of life. Here they are processed by such machinery as the conditioned response into personality products — habits, attitudes, abilities, and ideas. To understand why someone has a particular brand of personality, therefore, we must look not only to his biological inheritance, but also to his social experience.

VARIETIES OF HUMAN EXPERIENCE

The experiences which affect an individual's personality include those which are non-social as well as those which involve other persons. For instance, in the course of a laboratory experiment in psychology involving reactions to odors, it was noted that one boy had to be persuaded to smell some roses that were put before him. He seemed to be afraid of them. When the cause for this unusual reaction was investigated, it was found that the youth had previously suffered a bad fall near a rose garden. Conditioning of this sort built up around painful experiences with nature is very common. There are also, of course, pleasant associations, as in the case of those who come to love nature and spend much time in the woods or mountains. These experiences in the natural world may have important effects upon our attitudes, habits, and ideas; they are therefore significant for personality.

Although the natural environment cannot be left out of account as an influence upon personality, it does not begin to compare in importance with the social environment. We at once acknowledge the fact that other people are the most important things in our experience. But how do they come to be so? At the beginning of life, and for some time afterwards, the infant does not show any special awareness of human

beings; indeed he does not show any preference for animate over inanimate objects. This fact was observed in an experiment involving infants under one month of age.[1] Their reaction to different stimuli was noted at weekly intervals. During the first two weeks of life, their reaction to noises made by striking a porcelain plate with a spoon and by rattling paper was more frequent and positive than their reaction to the human voice. In the third week they showed about equal response to both kinds of stimuli, but in the fourth week the response to the human voice predominated. Apparently there are various stages in the process of conditioning; the child associates the human voice with feeding and other satisfactions, and comes progressively to favor the human voice above other sounds. Still later the child associates a particular voice with a particular person, such as his mother or his nurse. Here we have, then, the developmental basis for the child's first social relationships.

The infant makes differential responses to human beings because he is dependent on them for survival, to say nothing of the innumerable satisfactions they give him besides. As he grows older, his whole life becomes so wrapped up in others that he comes to crave social relations. The abhorrence with which human beings regard isolation from the group can be judged from the fact that solitary confinement is regarded as an extreme form of punishment. Likewise, when an individual withdraws from association with other human beings, he is likely to be or to become queer. If his withdrawal from others is extreme, it may mean insanity.

The social environment which is so important for personality is really made up of two parts, group interaction and culture. Much of group interaction is learned behavior and hence is a part of culture, but in the interests of brevity the two factors are frequently spoken of as group and culture. Group interaction is common to life in all cultures, in all ages. Everywhere there is leading, following, teaching, imitating, intimidating, fighting, ostracizing, praising, blaming. These are general patterns of conduct, or forms of collective behavior. But what is praised or what is blamed varies tremendously from culture to culture. The Plains Indians in America praised stealing under certain circumstances, but in modern cities it is nearly always condemned. Mothers teach children in all cultures. But what a Christian mother teaches her child in the United

[1] H. HETZER and B. TUDOR-HART, "DIE FRÜHSTEN REAKTIONEN AUF DIE MENSCHLICHE STIMME," SOCIOLOGISCHE UND PSYCHOLOGISCHE STUDIEN UBER DAS ERSTE LEBENSJAHR, 1927, pp. 107–24.

States is different from what an ancestor-worshiping mother teaches her child in China. Everywhere people communicate with each other, but they speak different languages in different cultures. A particular culture gives content and color to the general processes of group interaction and thus gives distinction to personality.

What, however, are these general mechanisms of social interaction through which culture operates? How do such processes as praise and blame, co-operation and conflict, ascendance and submission affect personality? For affect it they do. Whether a person becomes a leader, a bully, a coward, an imitator; whether he feels inferior or superior; whether he is altruistic or narcissistic depends upon the kind of interaction he has with others. Group interaction molds his personality.[1]

How do the group and other cultural influences leave their imprint on the child? How do they mold his personality? Personality is far too complicated to describe in a single chapter. Since the purpose of this discussion is not to provide an inventory of human nature but rather to point out something of the way social experience affects the formation of personality, it will be sufficient to deal with only a portion of the personality in process of development. This is the most vital portion of all, namely, the achievement of the self and social attitudes. There are probably no more vital aspects of personality than these. The key to a person's nature is the way he regards himself and the way he reacts to others.

Mechanisms Underlying Social Behavior

Before considering the actual attitudes which human beings develop toward themselves and others, it is desirable to give some thought to the avenue through which attitudes make their entrance into personality. How do human beings affect one another? How are these effects secured? The answer is that there are certain fundamental behavior mechanisms or patterns which human beings acquire and which in turn become the means to the development of personality.

[1] A somewhat different distinction between group and cultural influences has been made by other writers, using a different terminology. Thus Kimball Young distinguishes between culture and "personal-social or inter-individual influences." "Personal-social here means the effect of another individual or group of individuals upon one, outside of codified forms of behavior. It is the person-to-person relationship, uninfluenced by standardized habits and ideas common to one's group." (SOCIAL PSYCHOLOGY, p. 5.) See also the distinction made between "common-human" and "collective" processes.

IMITATION

One of the most important mechanisms through which learning, and hence personality development, takes place is imitation. The analysis of this mechanism is complicated somewhat by the fact that there are various types of imitative behavior.[1] The unconscious type may be explained in terms of the circular response, so-called because it is repetitive, a sort of going around in a circle. Thus a child may respond to a stimulus by crossing its fingers, but seeing the fingers crossed may, after a moment's delay, be the new stimulus which causes the child to cross them again. A child may repeat such a response over and over again, hence it is called a circular response. The appearance of some part of one's self in motion is the stimulus to get the part in motion again. Some time later another child crossing its fingers will be imitated, since the act of the other child is a new stimulus to the conditioned response. Imitation is thus not an inborn pattern but results from learning. One imitates someone else when one has imitated one's self, so to speak. One can imitate the behavior patterns of another person only if one already possesses, to some degree, the behavior patterns in question. Imitation is either the release, or a slight modification, of existing attitudes or habits. A child can take on his mother's speech inflection only after he has himself had a great deal of experience with verbal symbols and the modulation of the voice. The same is true for handwriting; an individual may unwittingly modify his style of writing to conform to that of someone greatly admired, but he must first know how to write.[2]

We are referring here to unconscious or automatic imitation, but one may also deliberately and consciously copy the acts of another person. Each month thousands of American girls eagerly await the appearance on the newsstands of the country of magazines carrying motion-picture news and Hollywood fashions. Imitation of the styles, actions, and conversation of the "top" people in the motion-picture center may be noted from coast to coast. What success one has in conscious imitation, however, likewise depends upon one's past experiences with the conduct

[1] For example, Faris identifies three types of imitation: immediate, unwitting; gradual, unwitting; and conscious, intentional. ELLSWORTH FARIS, THE NATURE OF HUMAN NATURE, "THE CONCEPT OF IMITATION," pp. 73–83.

[2] Cf. D. STARCH, "UNCONSCIOUS IMITATION IN HANDWRITING," PSYCHOLOGICAL REVIEW, 18:223–28, July, 1911. In this experiment, 106 individuals were asked to copy four models (one typewritten, the other three written in different styles), the copying to be done in the subject's own hand. With few exceptions the subjects altered their style to conform to that of the written models.

that is being copied. It would be a little difficult for a person who had never taken piano lessons to imitate Paderewski's playing. Contrary to the popular notion, imitation is not present in all very young children. Cooley, who was an acute observer of his own children, noted that before the age of about three years his little son showed no tendency to be imitative. Attempts were made to produce imitation by setting up a pattern, for example in building blocks, but these suggestions were received invariably with indifference or protest. It was only after certain foundations for patterns of behavior had been laid that imitation seemed to occur. As Cooley puts it, "Imitation came all at once: he seemed to perceive quite suddenly that this was a short cut to many things, and took it up, not in a merely mechanical or suggestive way, but consciously, intelligently, as a means to an end." [1]

SUGGESTION

A closely related type of mechanism is response to suggestion. Suggestion is a stimulus designed to touch off an immediate, uncritical reaction in the individual. The extreme form of suggestion is in hypnotism, where the subject acts out the suggestion made by the hypnotist. Even in ordinary life someone suggests we do something and almost automatically the suggestion is carried out as if by unconscious compulsion. The response to suggestion is a conditioned response to a stimulus such as a word or a tone of voice. This pattern of response is acquired in childhood when one follows the leadership of an adult, especially one for whom there is affection. Sometimes resentment and open rebellion develop against the one in authority, and the child responds to suggestions negatively, as in the case of the child who chronically says "I won't" when asked to do something. Just as there is in positive suggestion a tendency to follow along without question, just so there is in negative suggestion a disposition to go to the opposite extreme and to thwart every suggestion that comes from the disagreeable source. It will be noted, however, that in both cases the child's response is automatic and involves no deliberation.

It is well known that all persons are not equally suggestible. While all the factors involved in suggestibility are not known, some interesting correlations may be cited. Hull [2] cites some evidence tending to indicate

[1] C. H. COOLEY, HUMAN NATURE AND THE SOCIAL ORDER, p. 43.

[2] CLARK L. HULL, HYPNOSIS AND SUGGESTIBILITY: AN EXPERIMENTAL APPROACH (New York: D. Appleton-Century Company, 1933), p. 81.

that girls in our culture are more suggestible than boys. Age seems to be one of the most important factors influencing the degree of suggestibility a person evidences. An interesting experiment conducted by Messerschmidt[1] revealed this relationship clearly. She tested approximately twenty-five children at five years and again at two-year intervals from six to sixteen to determine their degree of suggestibility. Her results are peculiarly enlightening in that she not only found a dropping off of suggestibility in the later years, but also that suggestibility is comparatively slight with very young children and tends to increase until about eight or nine years of age. This experiment shows quite clearly that certain patterns of response had to be established, particularly with reference to language, before response to suggestion could be evoked. Suggestion is thus the release of a pattern of behavior already present in the individual, in contrast to conscious imitation, where the effort is to produce consciously a copy set before the individual.

Although response to suggestion is immediate, the actual carrying out of the suggestion may be delayed. A person who was under a hypnotic spell was given a post-hypnotic suggestion: he was told to go to the post office for his mail after being released from the trance. When the release had taken place, he was instructed to go home. Instead he went directly to the post office.

How such a delayed response is achieved physiologically is not clear, but it is known that a specific act can be so conditioned that it occurs in a person when he pronounces an appropriate cue word. Later, similar response may occur when the word is repeated silently. Dramatic corroboration of this fact is found in an experiment performed by Hudgins,[2] in which an involuntary act was so conditioned that when at a later time a cue word was even thought of the action occurred. The subject was told to sit quietly in a chair facing the experimenter and not voluntarily to move. Hudgins then flashed a light, squeezing a dynamometer at the same time that he pronounced the word "contract." This was repeated many times, until the pupil of the eye of the subject would contract at the mere saying of the word "contract." After the experiment was completed it was found that the eye would contract in response to the suggestion of the soundless inner utterance of the word "contract."

Man's excellent memory and the relation of words to memory make

[1] R. MESSERSCHMIDT, "THE SUGGESTIBILITY OF BOYS AND GIRLS BETWEEN THE AGES OF SIX AND SIXTEEN YEARS," JOURNAL OF GENETIC PSYCHOLOGY, 43:405–21, September–December, 1933.

[2] C. V. HUDGINS, "CONDITIONING AND THE VOLUNTARY CONTROL OF THE PUPILLARY LIGHT REFLEX," JOURNAL OF GENERAL PSYCHOLOGY, 8:3–51, January, 1933.

possible not only a great variety of conditioned responses but the persistence of tendencies to respond long after the original stimuli have occurred.

Although it is seen that suggestion is largely a psychological phenomenon, the concept has wide applicability in sociology. Man's tendency to respond to suggestions makes him prey to those clever enough to understand how to manipulate his suggestibility to their own advantage.[1] Every day of the year we are besieged by advertisers, newspapers, propagandists who influence us by suggestion. Prestige is a powerful factor affecting our response to suggestion. We tend to believe statements if they are made by people who are in high position or for whom we have liking or respect. Advertisers capitalize on this human tendency in utilizing signed statements by celebrities to endorse their products. People may even be swayed from one position to another by the fact that they hear that someone they like also takes the second position. In a certain college a group of students was given a set of statements to check if they agreed with them, for the purpose of testing their position in regard to certain items involving a liberal or conservative opinion.[2] Four weeks later the same test was again given, but this time a statement was included that a number of prominent educators had concurred in certain liberal statements that were checked. The result was a decided shift toward the more liberal position, a shift too large to be accounted for by chance fluctuations. Suggestion seemed clearly to have caused a majority of the students to shift from one position to another.

SYMPATHY

Sympathy is another social behavior pattern which is of great importance for the development of personality. Sympathy is closely allied with both imitation and suggestion, and in a sense is basic to both. Sympathy may be defined as the ability to put one's self in another's place and feel as he would feel in the same situation.[3] One of the most elementary forms of sympathy is mere physical responsiveness to what we see another doing. We find ourselves swaying with the trapeze artist, and holding our breath when he leaps through the air. Sympathy is closely related to what is frequently called unconscious imitation of another's action.

[1] Cf. Chapter XI.

[2] C. E. ARNETT, H. A. DAVIDSON, and H. N. LEWIS, "PRESTIGE AS A FACTOR IN ATTITUDE CHANGES," SOCIOLOGY AND SOCIAL RESEARCH, 16:49–55, 1931.

[3] C. H. COOLEY, HUMAN NATURE AND THE SOCIAL ORDER, p. 102.

Experiments show that we not only imitate these actions in our imaginations, but that we actually go through some of the physical motions ourselves. To measure this reaction an adroit technique was employed by Hull.[1] A young man, unfamiliar with the purpose of the experiment, was asked to see how still he could stand with his eyes closed. On the pretext of getting him in the proper position a pin was stuck under his coat collar, with a thread connecting to a sensitive recording device. Suddenly an assistant rushed into the room and asked if she could take her "test" right away as she was in a great hurry. The subject said he would gladly wait and was asked to stand still. The young woman then proceeded, in full view of the subject, to go through extreme motions, bending far forward and far backward, as though trying to reach something. Each time she did so the subject unconsciously imitated her, swaying forward slightly when she did and bending backward in a similar manner. The recording device got an accurate picture of his movements as he, through sympathy, unconsciously imitated the girl.

Like the other patterns described, sympathy may result from conditioning; in this case, the conditioning is the circular type. We shudder when a person falls because we have gone through the experience of falling and suffering pain. In a similar manner we feel sympathetic when another person weeps. Although imagination plays an important part in causing sympathy, it is difficult for an individual to imagine what he has not himself experienced. A small girl is seen sitting by her doll, weeping copiously. When asked what is the matter, she says, "My dolly is sick. I feel so sorry for her." Although imagination enters into the experience vividly, the child must also have some recollection of how she has felt when she was sick before she can sympathize with her doll. Imagination can round out the picture but there must be something in one's own experience for imagination to work on.

IDENTIFICATION

In order to feel sympathy for someone in his plight, it is not enough to have suffered as he is suffering. In addition it is necessary to feel that somehow the other's pain is one's own. The two must be tied up in some way. There are rich men who were once poor, who have no sympathy for the masses. They do not identify themselves with the underdogs. On the other hand, many social reformers are persons who once suffered some sort of privation or injustice, and although now out

[1] C. L. HULL, *op. cit.*, pp. 42–43.

from under the burden themselves, they do not feel comfortable so long as others must bear the load. This tendency of human beings to put themselves in imagination in the place of others is called, by the psychologist, identification. Sometimes the tendency is carried to the point where the whole self of another is identified with one's own. When Samuel Richardson was writing his great story, *Clarissa Harlowe*, and releasing it for publication in installments, he received a frantic appeal from a parent begging him not to allow the girl to die. His own daughter, he said, had completely identified herself with the heroine, and the doctor had warned that if Clarissa died, the girl would surely go too. Extreme identification of this sort is usually pathological, a flight into the world of fantasy, but partial identification is the basis of sociality. As will be shown below, the child develops his personality through identification of self with the selves of others.

The Idea of Self

How does the concept of self develop? Clearly the idea is acquired, not inherited, since little babies do not have it. The notion of self begins to arise as the child learns something of the world of sensations about him. He learns to distinguish this color and that form; similarly he comes to learn that parts of his body belong to him. The fascination of the little child when he discovers his toes is familiar. In discovering his universe the child discovers himself. The idea of self develops in conjunction with the idea of other things. He learns that they are distinct beings and that he too has individuality. Acquaintance with his name and the use of pronouns aid the process of self-discovery. Little children get a great deal of practice answering such questions as "What is your name?" and "Whose little boy are you?" which emphasize the idea of self in relation to others.[1]

The self and "the opinions of others"

The self is thought of particularly in relation to others as listeners or observers. As listeners or observers, these outsiders are passing judg-

[1] In an attempt to throw light on the development of the idea of self, Cooley studied the self-words used by his own children between the 20th and 33rd months of life. He found that the use of the word "I" represented "the assertion of self-will in a social medium of which the speaker is conscious." (C. H. Cooley, "A study of the early use of self-words by a child," psychological review, November, 1908, pp. 339–57.) This conclusion is confirmed by Read Bain, "The self- and other words of a child," american journal of sociology, 41:767–76, May, 1936.

ment. They praise the child for certain things he does, and blame him for other things. An eminent psychologist, G. Stanley Hall,[1] in writing about his early boyhood on the farm, tells how his father forced him to do many things which were distasteful to him. He had to drive the pigs to the market. His schoolmates jibed him about this so much that the boy took to driving the pigs by a circuitous route, far out of the way, to avoid going past the homes of his acquaintances. As a result he was late for school one day. When he entered the room, his teacher made some insinuating comments, to the great amusement of the whole class and to young Stanley's mortification. Years later this same teacher was one of Hall's associates at Harvard. It happened that this man sickened one night and died. Even under these circumstances, Hall reports, he found it difficult to feel any real sympathy for the fellow. This incident reveals how sensitive the child is to the opinions of others.

Hall[2] suggests in another place that a clue to the child's idea of self may be found in the names or name by which he is called by his intimates which reflect approval or disapproval. A child to whom the epithet "Pet," "Sweetheart," or "Angel" is applied would be likely to have a different idea of self from one called "Imp," "Cry-baby," or "Monkey." Indeed, as we shall see below, it is possible to account in large measure for a given individual's conduct in terms of the praise and blame he has received from others.

The self and social rôles. Since the self is so closely related to the stimulus of praise and blame by others, it is easy to see why children play rôles or act parts. They play at such games with dolls, for example, and daydream about being heroes, objects of affection, or victors in encounters. The little child who, in "playing house" with his dolls, takes the part of his parents, attributes his own personality to the dolls. He thus gets an outside view of himself. He defines his own personality in terms of the personality of his parents. Through his dolls he explores his knowledge about when parental authority is to be heeded and when it may safely be ignored. The dimensions of his own ego are determined accordingly. The idea of self would thus appear to develop in part from "taking the rôle of the other."[3]

[1] G. S. HALL, LIFE AND CONFESSIONS OF A PSYCHOLOGIST (New York: D. Appleton-Century Company, 1923).

[2] G. S. HALL, "THE EARLY SENSE OF SELF," AMERICAN JOURNAL OF PSYCHOLOGY, 6o:351–95, 1897–98.

[3] GEORGE H. MEAD, MIND, SELF, AND SOCIETY (Chicago: University of Chicago Press, 1934), pp. 135–226. Mead traces the evolution of "taking the rôle of the other" from the dramatic

The imaginary play of children is a well-known phenomenon. Not so obvious is the fact that everyone goes through life playing rôles which are responses to the attitudes of others, centering especially around praise and blame. Little behavior, indeed, is undertaken without consideration for others. Human beings may be regarded as "acting" with reference to the opinions of others.[1] In the view of Charles H. Cooley this tendency to adjust our conduct to the conduct of others toward us is the central fact in personality. He has named this phenomenon by the revealing phrase "the looking-glass self."

> "Each to each a looking-glass
> Reflects the other that doth pass."
>
> As we see our face, figure, and dress in the glass, and are interested in them because they are ours, and pleased or otherwise with them according as they do or do not answer to what we should like them to be; so in imagination we perceive in another's mind some thought of our appearance, manners, aims, deeds, character, friends, and so on, and are variously affected by it.
>
> A self-idea of this sort seems to have three principal elements: the imagination of our appearance to the other person; the imagination of his judgment of that appearance, and some sort of self-feeling, such as pride or mortification. The comparison with a looking-glass hardly suggests the second element, the imagined judgment, which is quite essential. The thing that moves us to pride or shame is not the mere mechanical reflection of ourselves, but an imputed sentiment, the imagined effect of this reflection upon another's mind. This is evident from the fact that the character and weight of that other, in whose mind we see ourselves, makes all the difference with our feeling. We are ashamed to seem evasive in the presence of a straightforward man, cowardly in the presence of a brave one, gross in the eyes of a refined one, and so on. We always imagine and in imagining share the judgments of the other mind. A man will boast to one person of an action — say some sharp transaction in trade — which he would be ashamed to own to another.[2]

play of childhood to the later co-operative activities of adolescence (as in team play), and finally to "taking the rôle of the generalized other" (public opinion), which would seem to account for such phenomenon as man's sensitiveness to gossip.

[1] Others are always selected; that is, their number and nature vary. Some individuals are sensitive to the opinion of a great number of others, while some may be indifferent to the opinion of all but a very few intimates. The experience of religious martyrs who are responsive to "the will of God" presents an interesting case, and suggests that "the other" may be symbolic.

[2] HUMAN NATURE AND THE SOCIAL ORDER (New York: Charles Scribner's Sons, 1922), pp. 183–85.

Since everyone has many social relationships, everyone plays many parts. A person may take on as many rôles as he has acquaintances and friends; in other words, he may have as many rôles as he has group affiliations. He may behave a little differently in each situation, adjusting his conduct to that of the others and what they expect of him. For this reason it is, for example, not safe to judge from knowing a man in his business what he is like at home. He may be hard-dealing, brusque and inconsiderate with his employees, but tender, affectionate and generous toward his family, or he may be precisely the opposite. In interpreting an individual's conduct it is imperative to take into account the circumstances in which he finds himself. What the sociologist calls "the situation" is vital to an understanding of behavior.[1] The practical significance of this point can be seen, for example, from the fact that one of the most effective means of correcting criminal tendencies in young people has been found to be a change of environment.[2]

SELF AND INHIBITION

To avoid censure, it is necessary for the child to learn to repress behavior of which the group does not approve. He must learn inhibition, the ability to block the overt portion of a response to a stimulus. Moral traits such as honesty and truthfulness are based upon inhibitions to tendencies to do acts which would be called stealing or lying. The successful carrying out of inhibitions is evidence of character. In the beginning inhibitions are developed in children by threats, beatings, and other manifestations of disapproval. Positive means, although probably less often used than negative, are in general superior. On the average children respond best under the stimulus of praise, less well under the force of blame and least well when those in charge have an indifferent attitude.[3] As a practical matter, of course, proper dosages

[1] The "situational approach" has been developed by a number of sociologists, but chiefly by W. I. THOMAS. See his THE UNADJUSTED GIRL (Boston: Little, Brown and Company, 1923), chap. II; also "THE BEHAVIOR PATTERN AND THE SITUATION," PUBLICATIONS OF THE AMERICAN SOCIOLOGICAL SOCIETY, 22:1–13, 1928; and THE CHILD IN AMERICA (with D. S. THOMAS), 1928. In the latter, Thomas attributes the phrase to Dr. Esther Loring Richards (p. 73).

[2] More exactly, the provision of satisfactory foster parents has been shown to be the most effective corrective for delinquents of normal intelligence. C. R. ROGERS, CLINICAL TREATMENT OF THE PROBLEM CHILD (Boston: Houghton Mifflin Company, 1938).

[3] E. B. HURLOCK, "THE VALUE OF PRAISE AND REPROOF AS INCENTIVES FOR CHILDREN," ARCHIVES OF PSYCHOLOGY, no. 71, 1924; also, "AN EVALUATION OF CERTAIN INCENTIVES USED IN SCHOOL WORK," JOURNAL OF EDUCATIONAL PSYCHOLOGY, 16:145–59, 1925. L. SEARS concludes from a study of fifty detailed cases that persuasion is a far more effective method of control than punishment. RESPONSIBILITY: ITS DEVELOPMENT THROUGH PUNISHMENT AND REWARD (New York: Columbia University Press, 1932), pp. 129–69.

of praise and blame must be resorted to. As the child grows older an interesting development of inhibition takes place with the acquisition of self-discipline or the development of the will. In this case the symbol of the self plays an important part. Screaming because of pain can be inhibited by muscular sets, by thinking of the word "sissy," by recalling a goal of manliness.

Repression. While moralists and religious teachers are correct in stressing inhibition as a cardinal factor in the formation of character, psychiatrists find that extreme forms of inhibition result in abnormal mental behavior. That is to say repression, if carried too far, may be a cause of insanity. Irene, a patient cited by Janet, had recently lost her mother, after nursing her through a long illness.[1] She seemed to act as if nothing had happened, as if her mother had not died. Then suddenly she would go through the scenes of the sick chamber, just as if she were nursing her mother. Just as suddenly, this "somnambulism" would cease. Further study of the patient by the psychiatrist revealed that the thought of her mother's dying was too great for Irene to bear. She repressed the thought, that is, tried to keep it out of consciousness, but she succeeded only in splitting her personality in two, so that she had two selves, like Dr. Jekyll and Mr. Hyde, completely dissociated from each other.

What part does the group play in causing such repression? Group opinion determines the values we cherish and those we abhor. Moreover, living in groups is possible only when each one of us so curbs his desires as to respect the rights of others. Repression thus derives from our regard for the wishes and opinions of other persons. In Irene's case, for example, we note first of all her close relationship with her mother. Irene's emotional dependence was so great that she could not function well without her mother. Such extreme dependence is viewed with disapproval by the group, especially in an older person. On this account Irene may have had a great sense of shame which caused her to block her mother entirely out of mind. Here we have a fundamental conflict of wishes which was resolved by repression.[2]

[1] PIERRE JANET, THE MAJOR SYMPTOMS OF HYSTERIA (New York: The Macmillan Company, 1929), p. 29.

[2] W. I. Thomas has postulated four wishes that are especially significant for life. These are the desires for new experience (adventure), for security, for intimate response, and for recognition (applause). In Irene's case we may say, perhaps, that there was a conflict of the desire for continued intimate response from her mother and her desire for social approval. It may be noted that the first two of Thomas' wishes relate to the gratification of certain fundamental drives of the individual (e.g., hunger and activity drives), while the second two

Repression and displacement. It is one thing to repress a desire, and quite another to keep it repressed. Desires often have tremendous drive and are not easily inhibited. They seek to escape the censor and find expression by means of some disguise. An amateur poet [1] once expressed violent and unusual irritation at the music of the chimes in a neighboring church, which was customarily thought to be very beautiful by townspeople and visitors. Inquiry showed that the poet had lost in a poetry competition, the prize going to the much beloved pastor of the church with the chimes. The envy and jealousy which the loser possessed he could not admit even to himself. It was not proper, not civilized behavior. The hatred found expression against the church bells. This type of reaction may be explained in terms of conditioned response. The pastor was originally though unconsciously the stimulus which precipitated jealousy, but association of the pastor with bells made it possible for a conditional response to be made to the bells.

Sometimes the outlet proves to be a serious affliction. Freud cites a case of disorder known as compulsion neurosis in which a woman was compelled to examine the numerals on the bank notes that passed through her hands. She knew there was no need for this, but she could not keep herself from doing so, and suffered acutely. Upon analysis, it was found that she had experienced an unrequited love in which her rôle was such that it brought her a great sense of shame. A bank note

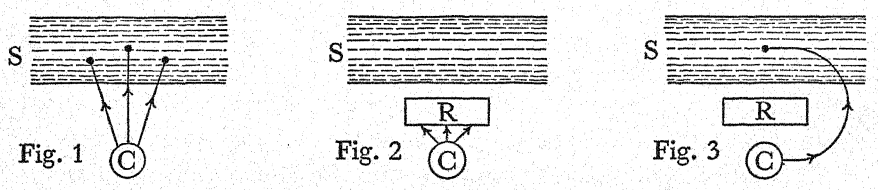


FIGURE 32. SCHEMATIC CONCEPTION OF MENTAL CONFLICT, REPRESSION, AND DISPLACEMENT

Figure 1 shows the normal operation of a mental conflict (C). *The ideas, energy and emotion associated with* (C) *are discharged directly into the stream of consciousness* (S), *the contents of which may be discovered by ordinary introspection. Figure 2 shows how repression* (R) *blocks the normal expression of the conflict, as in the case of Irene, who repressed the unpleasant thought of her mother's death and acted as if nothing had happened. Such a severe conflict, however, cannot be kept repressed; denied normal expression, it finds a devious outlet, as shown in Figure 3, representing displacement. Adapted from* BERNARD HART, THE PSYCHOLOGY OF INSANITY (*Cambridge, England: The Cambridge University Press; New York: The Macmillan Company, 1925*), *p. 98.*

have a great deal more to do with the group and its values. The first two are often in conflict with the second two. (W. I. THOMAS, THE UNADJUSTED GIRL.)

[1] BERNARD HART, THE PSYCHOLOGY OF INSANITY.

had figured in the experience. Her love was accordingly repressed and forgotten, but it was not dead. The bank note was the stimulus that had for her an irresistible fascination and was a partial outlet for her pent-up feelings. This type of escape of repressed drives may be called displacement. The cure for such cases is to bring to awareness the repressed desires and to resolve the conflict in the consciousness. The prevention is to work out the conflict consciously rather than repressing it from the mind.

SELF AND PROJECTION

The self can be enhanced not only by inhibiting behavior which the group condemns but by seeking to shunt one's own weaknesses onto others. This process of attributing to others feelings which are really one's own is called projection. A child bumps his shins against a chair because he is careless; but he hates to admit his responsibility, so he kicks the chair instead and thus projects the blame. Sometimes parents foster the child's natural tendency to shift responsibility, as in the case of the mother who sees her little son cut his finger on a tin can and consoles him by censuring the can: "Naughty can to hurt my boy." Again the mother may try to conceal her inability to manage her child by holding that he inherited the tendency toward mischief from his father; in this case she projects her weakness in child training onto the father. Also, parents who have not been able to realize an ambition themselves are often eager to have their children achieve it for them. In some cases parents carry their projection to the point of dictating what line of work their children shall follow.[1]

SELF AND RATIONALIZATION

Another device for preserving one's self-esteem is rationalization, or the tendency toward unwarranted justification of one's wishes and actions when they meet with social disapproval. Someone has said it is the practice of substituting good reasons for real ones. The little child may want to do something which he knows he ought not to do; for example, go fishing when he has chores to do. If he decides to go with the boys, he may give himself many good reasons to justify his decision: he hasn't been fishing for a long time, his parents will appreciate the fish, he can do the chores later. The truth is likely to be that he decides to go fishing

[1] For a stimulating discussion and exemplification of this process, see KIMBALL YOUNG, "PARENT-CHILD RELATIONSHIPS: PROJECTION OF AMBITION," THE FAMILY, 8:67–73, May, 1927.

because he wants to go fishing. This is hardly a respectable reason, so he bolsters his self-esteem with one that sounds more acceptable. Rationalization is a normal and harmless practice, provided that it is not carried too far. It is probably encouraged in childhood by parents who do not trouble to make clear to their children the important difference between real and fantastic thinking.

Experiences of the Early Years

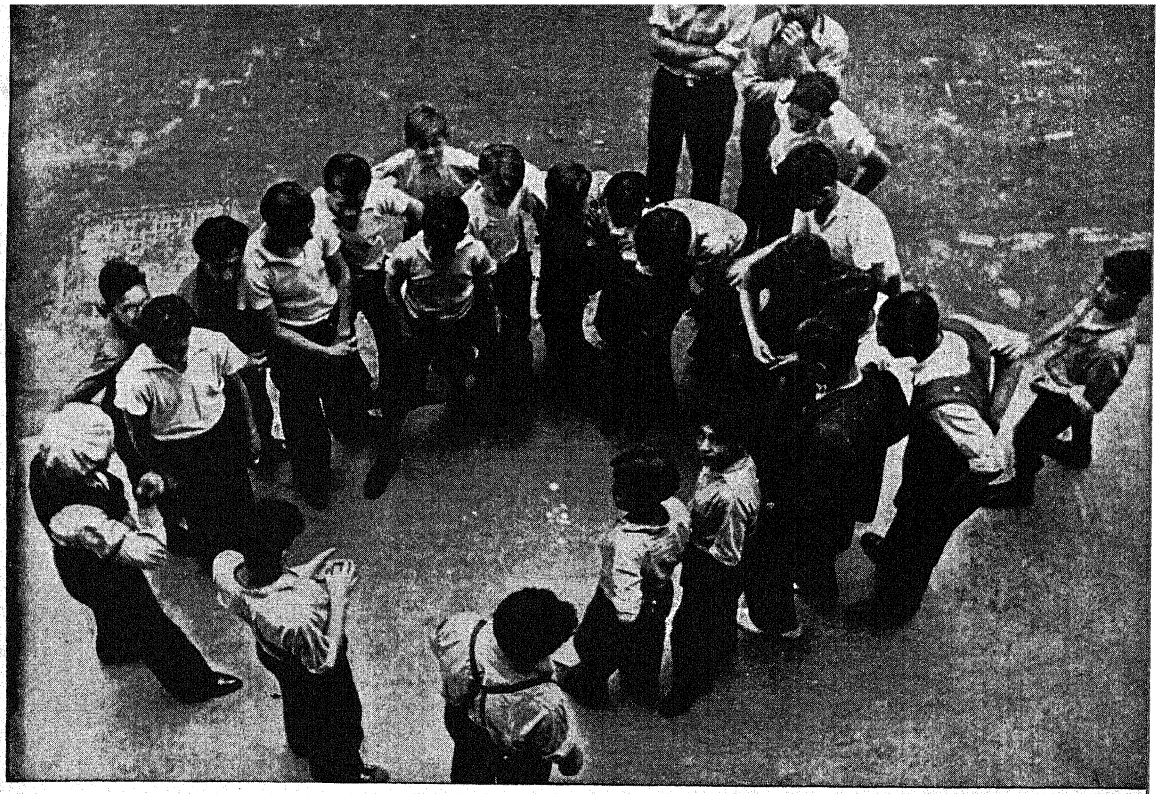
The discerning reader has no doubt noted the frequent reference in preceding paragraphs to the experiences of early childhood. This period has been referred to deliberately, for a child's early experiences are of the greatest significance for his personality. Those of the first six years are particularly important for a number of reasons. This period constitutes the time of the greatest activity and mental growth. The child's brain, for example, grows fastest the first year, then slackens its pace. Children six years old have brains often well within the range of those of adults. This rapid development of the child's nervous system is matched by a prodigious amount of learning during the early years.

This period would be important even if it were not one of unusual activity and growth and learning. It would still have a commanding position because it comes first. There is much truth in the popular view that first impressions are the most important. The earliest experiences the child has leave their mark on his nervous system and affect all subsequent experiences along the same line. If, for example, a very young child is frightened by strangers about his home, policemen, ragmen, icemen, and the like, the tendency is set up for him to shy away from people he does not know. On the other hand, if strangers who call at the house are pleasant and playful with the child, the foundations of sociability are laid down in the child's personality. To get at the roots of sociability, Wang [1] compared the personal histories of students making high introversion and high extroversion scores. The following facts were true of the childhood of many introverts but of very few extroverts:

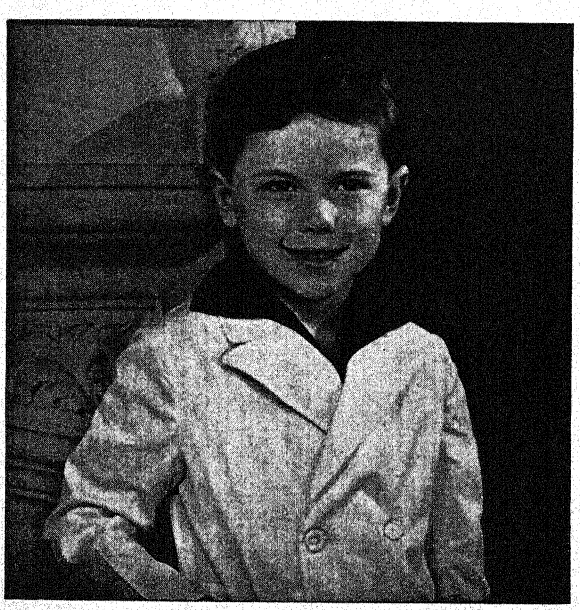
> Having no playmates, or just one or two playmates.
> Having practically no friends among the opposite sex.
> Having only a few intimate friends among own sex.
> Going to shows alone for recreation.
> Indulging in social amusements only when urged.

As the twig is bent, so is the tree inclined.

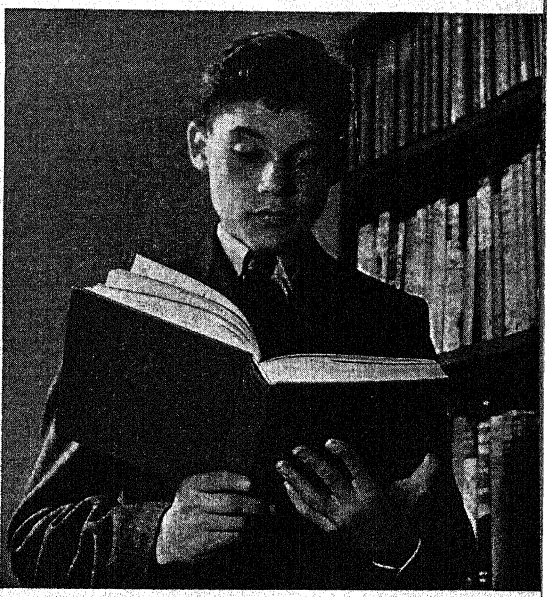
[1] C. K. A. Wang, "The significance of early personal history for certain personality traits," American Journal of Psychology, 44:768–74, October, 1932.



Pix



The Black Box



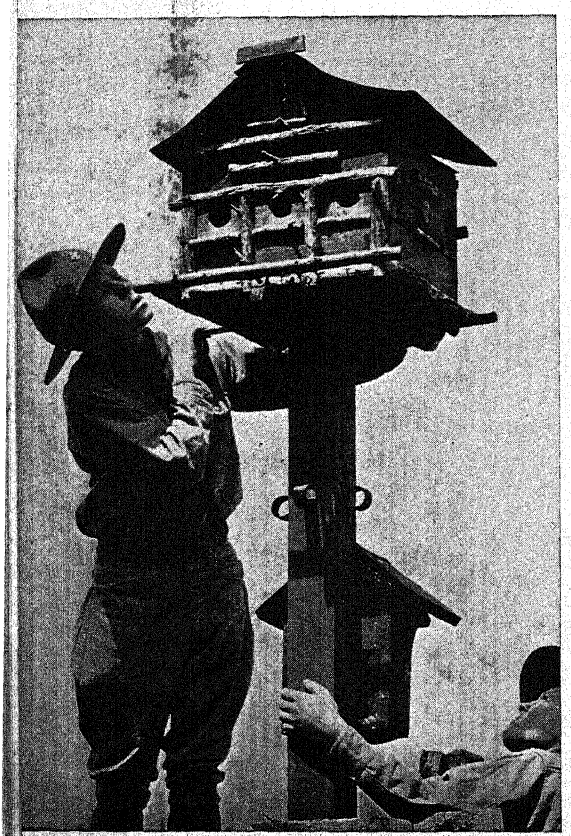
Gendreau

PLATE 1. ENVIRONMENT AND DIFFERENT TYPES OF PERSONALITY

The children shown above and on the reverse side represent different ways of rearing children and different types of educational training. Fundamental ideals vary from group to group. Sometimes the emphasis is on reliance, or skill, or courtesy, or studiousness, depending on the values of the group. (See reverse side also.)



Keystone



Ewing Galloway



H. Armstrong Roberts

PLATE 1 (*continued*)

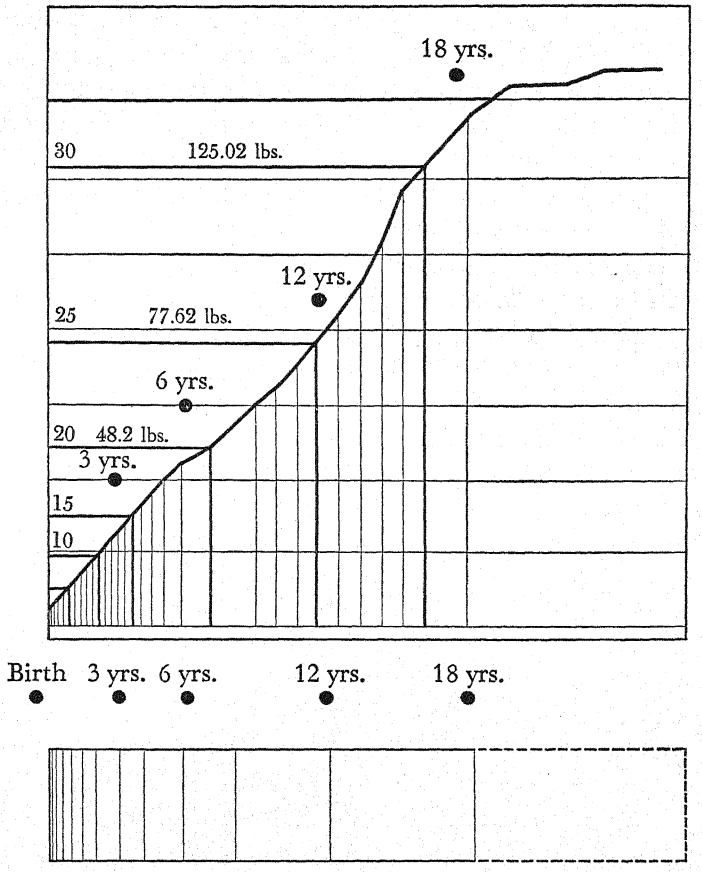


FIGURE 33. RATES OF PHYSICAL AND MENTAL GROWTH, FROM BIRTH TO MATURITY

The above figure shows the importance of the early years of life for growth, when the rate of growth is much more rapid than during later years. The upper chart indicates the physical growth of man from birth to maturity, with vertical lines added to mark the duration of the periods required for each 10 per cent addition to the weight. (*Adapted from* MINOT, AGE, GROWTH AND DEATH [*New York: G. P. Putnam's Sons.*]) *The lines are close together at the start, one 10 per cent gain following after another in short intervals of time. As the child gets older, it takes longer to add the same proportional amount. The lower chart illustrates the arrangement of intervals of mental growth according to norms of development established by Gesell. The vertical lines represent the same time interval as in the upper chart.* (ARNOLD GESELL, THE MENTAL GROWTH OF THE PRE-SCHOOL CHILD [*New York: The Macmillan Company, 1925*], *p. 18.*) *There is an analogous concentration of mental growth in infancy. There are nine developmental intervals in the first sexennium of life and only three in the succeeding sexennia. According to this, there is, broadly speaking, relatively three times as much mental development in the first six years as in the following twelve, showing the special importance of the early years for personality.*

Until recently the importance of the early years of life was not recognized and the fact is still not appreciated very widely. The influences of childhood are by general assumption bracketed as heredity. Another popular idea seems to be that nothing of much importance happens during the early period, except such things as concern health. From the fact that most persons find it difficult to recall childhood experiences, particularly those they had before they were two or three years old, it is assumed that these experiences count for little. Good evidence of the widespread existence of this point of view is afforded by the usual run of biographies and autobiographies which give only slight attention to the person's early experiences. An author may mention who his ancestors were, what his parents did, where they came from and where they lived, but usually there is very little about his earliest experiences with his family and playmates, and the meaning of these experiences for his disposition and character.

It is not always clear what makes a person domineering or submissive, expansive or reclusive, altruistic or selfish, but most of the researchers seek explanations in the group of habits of infancy or very early childhood. For instance, the following behavior was observed in a group of children at play in a child guidance clinic. A slightly older child was placed with a younger child, and their behavior watched by observers unseen by the children. When a toy was introduced, the older child took the toy away from the little child, pushed the child down and kept the toy. Similar behavior was repeated throughout the day. One child tended to develop selfish, bullying habits, while the other child learned avoidance devices and yielding habits. Such a situation might well continue in actual life outside the experimental laboratory for weeks, months, years. If an invisible statistician were keeping a record over such a long period, the grand total of such reaction patterns would be very large. Such repetition tends to fix habits, and to develop at a tender age personalities either with grasping and domineering tendencies or with side-stepping and avoiding traits.

Since the foundations of personality are laid in early life, our interest is directed particularly to the experiences the child has with his mother and father, his brothers and sisters, his playmates, and his schoolmates. Most important of all, of course, are the relationships of babyhood. In some cultures the responsibility of caring for the baby falls on other children. In New Guinea each child is charged with the care of the next youngest. Elsewhere it may be usual to turn the baby over to a nurse or

governess. Generally, however, the chief rôle in the child's early life is played by his mother. Under the circumstances, nothing is more important for personality than the kind of relationship a child has with his mother.

SPECIAL IMPORTANCE OF EARLY FAMILY EXPERIENCE

In many fields of research, findings converge on the family as the principal social influence in the life of the individual. A few representative studies may be cited. In one investigation, a large number of children were tested as to their ideas of right and wrong, and the result correlated with the answers of the children's associates, as follows: [1]

TABLE 5. CORRELATION BETWEEN MORAL JUDGMENTS OF CHILDREN AND THEIR ASSOCIATES

Child and his parents	.55
Child and his friends	.35
Child and club leaders	.14
Child and school teachers	.03
Child and Sunday-school teachers	.002

These figures show that the moral judgments of children are largely derived from their parents. There is evidence also that parental influence does more than form judgments; it influences conduct profoundly as well. Terman found that happiness in the parental family is the factor most highly correlated with marital happiness of offspring.[2] That is to say, the most important single asset for a happy marriage is to have come from a happy home. Still other studies show that character, as well as happiness, is generally a function of satisfactory family adjustment. Healy and Bronner report that juvenile delinquents are almost always children who at some stage of their development have been blocked in their needs for satisfying relationships in their family circle.[3] There is abundant experimental evidence as to the primary rôle of the family in personality formation. This testimony is, moreover, supported by a

[1] H. HARTSHORNE and M. A. MAY, "TESTING THE KNOWLEDGE OF RIGHT AND WRONG," RELIGIOUS EDUCATION, 21:539–54, October, 1926.

[2] LEWIS TERMAN, PSYCHOLOGICAL FACTORS IN MARITAL HAPPINESS (New York: McGraw-Hill Book Company, 1938).

[3] WILLIAM HEALY and AUGUSTA F. BRONNER, NEW LIGHT ON DELINQUENCY AND ITS TREATMENT (New Haven: Yale University Press, 1936). This research sought an answer to the question: Why do we find a delinquent child in a family where the other children are not delinquent? A group of 105 delinquent children were compared with a control group of 105 non-delinquents from the same families. In nearly every case the delinquents were found to have suffered serious frustration in their family experience, while their non-delinquent brothers and sisters fared better.

mass of clinical material, such as the case which follows, reported by Taft.[1]

> Mary R., an adolescent girl, was reported to authorities for repeated petty larceny. She even stole certain objects while the investigation was pending. Mary's brothers and sisters were all normal, attractive, and well-behaved. Mary, however, was thin, stunted, nervous, shifty. The investigator described her as "unlovely and unlovable." What was the explanation? Mary's heredity offered no clue to her conduct. Her earliest experiences, however, shed a great deal of light on her later development. Mary was the oldest child. She arrived during the first year of marriage, an unplanned-for-child. Her coming was a source of much distress to Mrs. R. whose plans for herself for the first few years of her marriage did not include motherhood. Besides, Mrs. R. was ill during her pregnancy and Mary's birth was a difficult one. To aggravate matters further, Mrs. R. tried to nurse her baby but found it so painful that she had to resort to bottle-feeding. Because of the mother's upset condition, the baby did not thrive on her mother's milk, nor did she do any better on the artificial diet. Severe colic and constipation developed. Until she was 12 years old Mary showed little interest in food. Difficulty over feeding led in turn to quarrels over feeding, and the breach between Mary and her mother widened. Nor was Mary's father a comfort to her. Although a pleasant, conscientious person, he happened to be out of a job temporarily at the time of Mary's birth. He was also at odds with his wife over some gambling he had done. As a result, he found little pleasure in Mary's arrival and gave her no companionship. Annoyed by her mother and deserted by her father, Mary suffered a complete lack of the things she needed most at the time, such as quiet, affection, and regular care. She felt woefully insecure. With no love object to which to attach herself, she turned her attention inward upon herself. She became a self-conscious, selfish girl. Her stealing was in itself only of minor importance; it was significant, however, as a symptom of something deeper: the mental conflict which caused it. Her delinquency might be regarded as an effort to find substitute satisfactions or to have revenge on her parents.

INFERIORITY FEELINGS

Another way to describe Mary's plight would be to say she was burdened with an acute sense of inferiority. It is not unusual for one to

[1] Adapted from JESSIE TAFT, "THE EFFECT OF AN UNSATISFACTORY MOTHER-DAUGHTER RELATIONSHIP UPON THE DEVELOPMENT OF A PERSONALITY," THE FAMILY, 7:10–17, March, 1926. The above presentation is not, of course, full enough to be a proof. Indeed, the influences of the various factors are not isolated and measured, but Miss Taft makes a convincing analysis.

feel inferior at certain times, when some situation makes particular demands that one cannot meet. Many normal people feel inferior if called on to make a speech. It is said that Buffalo Bill, who hardly was conspicuous for inferiority feelings, found that to address a woman's club was a great ordeal. Inferiority feelings are important when they persist in dominating behavior, in which case they are referred to as a complex.

Alfred Adler,[1] who is responsible for the phrase "inferiority complex," first advanced the idea that it may be due to a constitutional defect or weakness. He further pointed out that an individual may try to overcome such a weakness by strengthening some other quality as a compensation. A small man may develop a deep voice and a commanding appearance and manner, as may have been true of Napoleon. Sometimes the compensatory efforts are not so successful. A sickly boy may spend much time in daydreaming, imagining himself in armor on a large white horse at the head of a parade of knights, advancing through a throng of admirers, prominent among whom are the boy's father, mother, and playmates. Such a boy may thus turn toward a more secluded, shut-in type of life. Or he may become a reader of books, and later show marked ability in literature where imagination is at a premium.

The way in which a child responds to feelings of inferiority will depend upon the way in which he defines his life situation. As has already been indicated, other people, especially those close to the child, have a great deal to do with determining the way he will interpret his constitutional difficulty. The group plays the deciding rôle. An illustration of environmental influence may be taken from the biography of David Lubin,[2] leader and founder of the International Institute of Agriculture. He was born in Poland of poor Jewish parents. When only four days old his face was burned by a Sabbath candle his mother was preparing as she sat up in bed. While the mother was weeping at the misfortune to her child, a rabbi came in. In comforting her, he told her it was not a misfortune but a sign from God that the infant was especially chosen to do His work and to become a great leader of his people. The child was accordingly named David after the ancient Biblical King. The biogra-

[1] THE PRACTICE AND THEORY OF INDIVIDUAL PSYCHOLOGY, tr. by P. Radin (New York: Harcourt, Brace and Company, 1924).

[2] OLIVIA R. AGRESTI, DAVID LUBIN, A STUDY IN PRACTICAL IDEALISM (Boston: Little, Brown and Company, 1922), p. 16.

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pher testifies and Lubin claimed that this incident was of the very greatest importance in his life. His family directed his training as though he were to fulfill a mission as a chosen one of God. Young David in turn acted as though he wanted to render great service to his fellow men. We cannot say whether David Lubin would have succeeded as he did if this incident had not happened, but in his old age he testified to the rôle it played in his life.

Feelings of inferiority may also be present where there is no observable constitutional defect. Trainers of athletes know this and try to guard against it. In bringing out a boxer a regular rule is not at first to match him against a greatly superior fighter. He may lose confidence, that is, develop feelings of inferiority, which may ruin his career. The feelings of inferiority that persist are generally those that are acquired early in life. In early childhood a series of unfortunate experiences with a gang or a bully, especially if the child has been praised a great deal by adults at home, may give him a feeling of inferiority toward members of the group. A constitutional difficulty is not at all a prerequisite of the inferiority complex.

SUPERIORITY FEELINGS

A child may feel quite inferior to the group with which he associates, but compensate for his inferiority by striving to show superiority along some line. If he succeeds in excelling others, the child may become aggressive. In an experiment by Jock,[1] for example, a submissive child became a dominating child when he was taught certain skills in games so that he played the games better than other children. Ascendance and submissiveness are personality traits which are closely related to the child's ability to compete with others. A child may, of course, be submissive without feeling inferior; he may simply be a follower rather than a leader in the group. If he acquires skills, as the child in Jock's experiment did, he may reverse his rôles. Where the child has a pronounced feeling of inferiority, however, success in competition and attainment of leadership may not serve to dispel the feeling of personal inadequacy. The feeling may persist even though everyone else regards him as superior. Menninger [2] cites the case of a Herman Schmidt who, despite the fact that he had been elected by his classmates to the editor-

[1] L. M. JOCK, "AN EXPERIMENTAL STUDY OF ASCENDANT BEHAVIOR IN PRE-SCHOOL CHILDREN," UNIVERSITY OF IOWA STUDIES IN CHILD WELFARE, 9:7–65, 1934.

[2] K. A. MENNINGER, THE HUMAN MIND (New York: A. A. Knopf, 1930).

ship of the school paper, the chairmanship of the prom committee, and the presidency of his class, still felt that he was utterly unworthy and inadequate.

Opposed to those who act superior but feel inferior and to those who show superiority without being puffed up about it, are those persons who feel exceedingly self-satisfied whether they are especially capable or not. It is this last group who possess what may be called genuine superiority feelings.

This trait of personality is built up through excessive praise in early childhood. Such praise is so deeply pleasing to the child that he tends to seek it. If he is trained in dancing or elocution and paraded before friends who express admiration, he grows to love applause and adulation. A beautiful body or face accentuates the desire for self-display. The child comes to admire himself, that is, becomes exhibitionistic and narcissistic. Later he may become an orator, preacher, or actor. This trait of loving to stand before an audience and receive applause, like any other habit such as learning to write on the typewriter, can be built up by repetition so that it becomes a part of the personality, apparently never to be eradicated.

CONFORMITY AND REBELLIOUSNESS

Another pair of related personality traits whose origin has been traced are conformity and rebelliousness. A child may be a Babbitt or he may be a Bohemian. Usually, of course, the child becomes a conformist. The group exerts a great pressure to get him to accept its values. How the group accomplishes this is discussed in detail at a later point;[1] only a general statement need be made here. At first the child presents no problem in discipline. His needs are so urgent, and he is so helpless that his parents adjust to him rather than he to them. Soon, however, the process of teaching him certain controls is begun. He must be converted from a little animal into a human being. With the development of self-consciousness the child presents claims of his own. By the time he is three he may think that an afternoon nap is no longer necessary, and that he should be allowed as much candy as he wishes. His rapidly expanding ego collides with parental and group requirements. The result is a series of struggles against control. The child has temper tantrums. Investigation of large numbers of children has brought out the fact that it is usual for a child to have such violent reactions between

[1] Chapter VII.

the ages of three and five.[1] The conflict against control is, however, usually short-lived. The child generally comes to realize that his parents are not dictators, since teachers and others in authority make similar exactions. The child becomes a conformist once more, to win the praise of the adults whose esteem he values.

On the other hand, some children remain rebels. Their purpose is not to please but to defy their elders. One girl who came from a family of wealth and social position refused to make her debut, turning her back on the social life of her class. Writing later as a woman who had made a place for herself in the professional world, she says of her girlhood at home:

> My mother and father . . . were forced to adjust themselves to a "Dud" in the family circle. Life was made uncomfortable for me through an atmosphere of failure, and of having somehow not come up to expectations, so much so that I went around with a sense of guilt and rather bitter revolt.
>
> I flatly refused to "come out," but I had not the faintest idea of what I did want. I know only that I was "agin" everything the family wanted — all its traditions, all its theories, all its works.[2]

Rebelliousness of this sort is a reaction to too much authority unwisely administered. The situation is complex, but rebelliousness tends to arise when a father is excessively dominating over one child instead of another, and when the mother is not dominating. Rebelliousness is especially probable when the domination is exerted with little understanding. Herbert Spencer was dominated first by his father and then by an uncle, toward both of whom he developed a rebellious attitude.

It is a characteristic of such action patterns that they may be evoked by other stimuli than the ones which originated them if there is a resemblance or other association between the two stimuli. A railroad time table has been known to serve as such a sign of authority and to cause a reaction of rebelliousness against the railroad. The policeman stands for law and government, hence governmental agencies often serve as stimuli to evoke rebelliousness originally precipitated by a domineering parent. This is one way in which a person may become a radical who rebels against the existing order, or a laissez-faire-ist who believes that the government that governs least governs best.

[1] FLORENCE GOODENOUGH, "ANGER IN YOUNG CHILDREN," INSTITUTE OF CHILD WELFARE MONOGRAPH, Series no. 9, University of Minnesota, 1931.

[2] "IN SEARCH OF ADVENTURE" (These Modern Women Series), THE NATION, 124:630–32, June 8, 1927.

SUMMARY

Our review of how the newborn babe achieves personality has shown the controlling part which experience plays in this achievement. We can seldom understand why a person behaves as he does unless we know what his life situations have been. This knowledge is difficult to secure. Although a person's experience is continuous and unbroken, the individual is seldom able to go back in memory to supply all the links in the chain of events which have shaped him. Those he is least likely to remember are the most important of all: the experiences of early childhood.

Particularly significant are the child's relationships with other persons; and most important of all are his dealings with the members of his own family. These may be satisfying or dissatisfying to him. Because other people mean so much to him, the child comes to evaluate his own worth in terms of the way he thinks he is regarded by others. Self-attitudes thus result from experiences with the group. Whether the child feels superior or inferior, whether he becomes aggressive or submissive, interested in others or self-centered, is much the outcome of the kind of experience he has with other people. His personality is an expression of the rôles he plays in the various groups to which he belongs.

In concluding this discussion a word of caution must be given concerning the relationship of group experience and personality traits. It must not be thought that it is possible to predict that a certain type of group experience will invariably produce a certain trait of personality. We know that the group situation will always have some sort of effect on personality but there are far too many possible variations both in group situations and in human beings to be certain of a particular effect on personality. For example, dominating fathers do not always develop rebelliousness in their children. Naturally submissive children may be completely broken in will. If the dominating father is also the main object of affection in the child's life, rebelliousness is not so likely to develop. The culture of the period must also be reckoned with. Although U. S. Grant hated the idea of attending West Point, he nevertheless did attend because his father decided he should. Had this sort of paternal behavior been exceptional at that time, which it was not, Ulysses S. Grant might have been more inclined to rebel against it. It must be concluded therefore that only general relationships between group experiences and personality may be indicated.

QUESTIONS FOR DISCUSSION

1. How are group influences upon personality different from cultural influences? In real life can the two be kept separate?
2. What is the difference between an *individual* and a *person*? What is the significance of this distinction for sociology?
3. Why is an understanding of a person's life situations necessary to an understanding of his personality?
4. What is meant by "identification"? Why is it an important process in personality development?
5. How is the development of the idea of *self* in a child dependent upon the opinions of others?
6. How may the group exercise control over an individual's personality through the development of inhibitions?
7. How far back can one recollect experiences? Are the incidents which are recited memories of the actual experiences or of accounts given the individual at some later time by parents, relatives, or friends?
8. Discuss and criticize Cooley's concept of "the looking-glass self."
9. How may the change of a person's rôle change his personality?
10. What part does the desire for social status play in the formation of personality?
11. Why are the early years of a child's life so vital for the development of his personality?
12. What determines the way in which different people respond to constitutional difficulties?
13. What effect does harsh corporal punishment by parents have on the personality of the child? Do all children react alike? Why?

TOPICS FOR REPORTS

1. Tests for the measurement of personality traits.
2. G. H. MEAD: MIND, SELF, AND SOCIETY. Chicago: University of Chicago Press, 1934.

3. JOHN DOLLARD: CRITERIA FOR THE LIFE HISTORY. New Haven: Yale University Press, 1935.
4. H. G. WELLS: AN EXPERIMENT IN AUTOBIOGRAPHY. New York: The Macmillan Company, 1934.
5. A case study of a rebellious personality.
6. Relative efficiency of praise and blame as means of social control.
7. The personality of adopted children.
8. Order of birth and personality development.

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BURGESS, ERNEST W., editor, PERSONALITY AND THE SOCIAL GROUP. Chicago: University of Chicago Press, 1929.

A collection of articles on the social causation of personality differences.

COOLEY, CHARLES H., HUMAN NATURE AND THE SOCIAL ORDER. New York: Charles Scribner's Sons, 1922.

An early account of the group forces affecting personality, but one that is still good. The book also contains the exposition of the author's well-known ideas on the origin of the conception of self.

FARIS, ELLSWORTH, THE NATURE OF HUMAN NATURE. New York: McGraw-Hill Book Company, 1937.

Part I of this volume of critical essays deals with the group forces that make the individual a person.

MURPHY, GARDNER, and LOIS B. MURPHY, "THE INFLUENCE OF SOCIAL SITUATIONS UPON THE BEHAVIOR OF CHILDREN," HANDBOOK OF SOCIAL PSYCHOLOGY, CARL MURCHISON, editor. Worcester, Massachusetts: Clark University Press, 1935.

Experimental work showing the influence of specific social situations on behavior; necessarily presents a fragmentary picture of the whole of group influences shaping personality.

MURPHY, GARDNER, LOIS B. MURPHY, and THEODORE M. NEWCOMB, EXPERIMENTAL SOCIAL PSYCHOLOGY. New York: Harper and Brothers, 1937.

Part II of this work presents interesting and important experimental research on the process of socialization.

PARK, ROBERT E., and ERNEST W. BURGESS, INTRODUCTION TO THE SCIENCE OF SOCIOLOGY.

Chapter 2 on "HUMAN NATURE" *and chapter 6 on* "SOCIAL INTERACTION" *are essentially concerned with the influence of the group.*

PIAGET, J., LANGUAGE AND THOUGHT OF THE CHILD. New York: Harcourt, Brace and Company, 1926.

An able research study, tracing the development of the child's speech from egocentric to socialized forms. Shows the rôle of others in the development of speech.

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See Parts III and IV for an account of the rôle of the group in shaping personality.

VII. CULTURE AND PERSONALITY

SOME YEARS ago Woodworth [1] undertook to measure the ability of members of different races to withstand pain. His subjects included white men and Indians. He applied a stylus to the skin, increasing the pressure until the subject admitted pain. Woodworth found that as a group the Indians absorbed more pressure than the whites before indicating that it was hurting them. We would therefore say that the Indians were more stoical than the white men; they showed a greater development of the personality trait of fortitude.

How shall we account for this difference? A biological factor may be involved, but this is very unlikely. The curve for the Indians was bimodal, which means that one group did very well and another not so well. If racial considerations were predominant in causing the result, we should expect the bell-shaped curve usual for biological data. The facts are better explained by what we know about Indian culture and its striking contrasts with that of the white man. From the cradle, the Indian was taught to tolerate pain. He might be introduced to pressure at the outset of life by being tightly bound to a cradle board. He might even have weights applied to his head to force his skull to assume the particular form thought beautiful by his tribe. At an early age he would become familiar with the stark facts of life and death. He would hear the exploits of brave men recounted time without end in the camp circle. Later he would have to undergo the trying ceremonies connected with puberty; he must not whimper lest this mean his exclusion from the usual activities of the men. With us things are very different. Every effort is made to remove children from scenes of suffering. It is no disgrace to admit aches and pains. Our answer to pain is not endurance but drugs and medicines and anaesthetics. When we compare the two

[1] R. S. WOODWORTH, "RACIAL DIFFERENCES IN MENTAL TRAITS," ATLANTA UNIVERSITY PUBLICATIONS, no. 20 (Atlanta University Press, 1916), pp. 61–65; 67–69. Woodworth found that both the whites and the Indians showed a bimodal distribution, but that the whites had the greater number in the group that could stand little pain, whereas the Indians were for the most part in the group that could stand much pain.

cultures it is not difficult to see why Indians on the whole show more physical courage of this type.[1]

The foregoing example suggests the close relation between culture and personality. The human being at birth, as we have seen, is quite lacking in the qualities that we associate with humanness. These qualities he slowly acquires as he lives in the society of men and learns their social heritage. From the cradle to the grave there is unceasing interplay between the individual and his culture. Exactly how the cultural environment leaves its imprint on him, and to what degree, have not yet been precisely determined. Needless to say, we do not have a complete record, or anything approaching it, even for a single individual. Only recently have attempts been made to keep continuous records of the behavior of babies. At the Yale Psychological Clinic, sound cameras grind away by the hour recording significant infant behavior. If this recording could continue through an individual's lifetime, without interruption and without his being aware of it, so that every experience of his life would be preserved and his every reaction revealed exactly as it occurred, then we should probably have the evidence from which to get a comprehensive picture of the impact of culture on heredity. This procedure is, of course, out of the question. We are obliged to resort to a more impressionistic approach. We can only suggest in a general way how culture operates to fashion the personality.

There follows a series of discussions illustrating the connection between various aspects of culture and personality. The discussions are representative in the sense that they are samples of various aspects of culture. In an earlier chapter, culture was subsumed under the heads of material and non-material traits. Here the same division will be followed. The rôle of both types of culture traits in personality formation will be exemplified. Before proceeding, however, it is desirable first to differentiate briefly between the group forces treated in the previous chapter and the cultural forces to be considered here.

The group processes are of a general nature. Interaction with others may, let us say, make an individual either assertive or submissive. Competition in the group may develop in the individual a sense of personal inadequacy and lead either to compensation for the inferiority

[1] This example illustrates the principle of adaptation (cf. A. G. KELLER, SOCIETAL EVOLUTION [New York: The Macmillan Company, 1915], chaps. IX–XI), that is, the tendency of the folkways to adjust themselves to the prevailing conditions of life. The hazardous life of the hunter calls for physical courage, hence this trait is regarded as a virtue among primitive peoples. In a modern city there is less need for this trait, hence it is valued less highly.

or retreat from others. Such behavior is found whenever individuals compete. Ascendancy and submission, leadership and followership, are universal characteristics of group life, because of individual differences in competitive skill and the accidents of interaction. These group reactions, it will be noted, are general. We do not know whether a person who competes at a disadvantage will acquiesce or rebel. We know only that he will react in one of these ways; that he will not be quite the same person after his group experience. If he rebels and becomes aggressive, we cannot tell in advance what form his assertiveness will take.

Group life consists of a set of general relationships; culture, on the contrary, consists of concrete, specific traits. Culture is both definite and unique, hence the influence of culture is specific and distinctive. At the beginning of this chapter, the impress of Indian culture on personality was seen to contrast rather sharply in certain particulars with that of modern American culture. The group factor is essentially the same in the two societies; in both, some individuals lead and others follow. But Indians who are dominant lead in physical endurance, in the hunt and in battle, while aggressive Americans lead in making a million dollars or writing a best seller. A person may show compensatory behavior because he feels inferior in the group, but whether he compensates by becoming a great soldier, as did Napoleon, or a religious leader, like Gandhi, depends on the culture. Culture gives specific direction and form to the group processes.[1] In this chapter we shall see how culture furnishes personality with specific content and color.

Material Culture and Personality

TIMEPIECES AND PUNCTUALITY

The products of culture themselves call forth reactions that affect personality. Inventions such as the watch and the clock encourage the habit of punctuality. The American Indians who have no clocks or watches in their culture have little notion of keeping appointments with any exactness, whereas commuters working in any large city have a very acute sense of time. Appointments are regulated with precision and daily schedules are laid off in units of time. Variations in hours or days may take place in keeping appointments among peoples without time-

[1] See Chapter XII, "Co-operation, Competition, and Conflict," for further development of this point.

pieces. We say they have no sense of time. Why primitive peoples have little use for punctuality and why it is so important in modern civilization depend on many other factors than the watch, of course, but promptness is in general a reaction to objective products of cultural life. Modern culture is loaded with tools like the radio, the railroad, and the timeclock, all demanding punctuality of those who use them. The personality of an American Indian differs from that of a white man in the matter of punctuality, and this difference is a consequence of differences in their cultures.[1]

PLUMBING AND CLEANLINESS

Another illustration is the relation of plumbing to cleanliness. Cleanliness is a personality trait which is greatly valued by our culture, as witnessed by the saying: "Cleanliness is next to godliness." It is, however, a trait which is greatly encouraged by the technology of plumbing and other inventions that are found with it. No doubt some peoples are cleanly without the benefit of modern plumbing, in which case other conditions are favorable. The Eskimos are dirty; but when one considers that they have to hang a bag of snow down their backs to melt it in order to get water, it is seen that it is not so easy to be clean as when one has only to turn on a faucet of hot or cold water and reach for the soap. In comparing peoples, therefore, cleanliness is seen to be a matter not of heredity but of the type of culture. Within a culture there may be some hereditary basis for variation in the tendency to be clean, but generally it is a function of occupation, or wealth, or some other culture trait.[2]

[1] Cf. A. IRVING HALLOWELL, "TEMPORAL ORIENTATION IN WESTERN CIVILIZATION AND IN A PRELITERATE SOCIETY," AMERICAN ANTHROPOLOGIST, 39:647–70, October–December, 1937. See also W. F. COTTRELL, "OF TIME AND THE RAILROADER," AMERICAN SOCIOLOGICAL REVIEW, 4:190, April, 1939. "Co-ordination in time takes its toll from all of us but probably among few other classes is it so complete and coercive as among railroaders" (p. 195).

[2] We ordinarily think of the English as a cleanly people, but before the advent of modern plumbing and sanitation conditions in England were such as scarcely to justify the use of this adjective. "Every writer during the fifteenth and sixteenth centuries who makes his comment on the customs and practices of English life, adverts to... the extraordinary uncleanliness of their habits and persons. The floor of an ordinary Englishman's house, as Erasmus describes it, was inconceivably filthy, in London filthier than elsewhere... The streets and open ditches of the town were polluted and noisome beyond measure. The Englishman disdained all conditions of health." J. E. THOROLD ROGERS, SIX CENTURIES OF WORK AND WAGES (New York: G. P. Putnam's Sons, 1884), p. 118.

Non-Material Culture and Personality

LANGUAGE AND PERSONALITY

In passing from material to non-material culture, the most natural thing is to turn to the field of language for illustrations. Language is unquestionably the most important phase of all culture in its implications for personality. This fact can be seen from certain basic facts. One of the principal differences between man and other animals is that he alone possesses speech. Again, language can be learned only through association with those who possess it; and, as the reader has seen, feral men who are reared in isolation from their fellows fail to acquire speech. This lack is a principal reason why such individuals seem not to be human. Also revealing of the significance of language for personality are cases of deaf-mutes, individuals who because of physiological defect never have had the opportunity of hearing speech and who therefore can never quite speak like others. Most instructive is the case of Helen Keller,[1] whose story is well known and which has been mentioned briefly before. At eighteen months of age she lost both her sight and hearing; and from this time on until the age of seven, when her ingenious teacher, Miss Sullivan, came into her life, Helen exhibited a warped personality. She was domineering, subject to fits of temper when crossed, jealous, and mean. No one seemed quite to understand her, and she for her part could not fathom the moving lips and strange behavior of others. But at the age of seven, under the tutelage of her remarkable teacher, an awakening occurred. Helen had retained a number of signs learned during infancy, but these were crude and unconnected. Miss Sullivan began to spell out words into Helen's hand, which Helen repeated and associated with objects. She had no realization as yet that all things have names and that through names she could share experiences with others. The sudden awareness of this worked a remarkable transformation of her personality. Her teacher thus describes it: [2]

> This morning, while she was washing, she wanted to know the name for water. . . . I spelled w-a-t-e-r and thought no more about it until after breakfast. Then it occurred to me that with the help of this new word I might succeed in straightening out the mug-milk difficulty (a con-

[1] From THE STORY OF MY LIFE, by HELEN KELLER.

[2] HELEN KELLER, *op. cit.*, p. 316. Reprinted by permission of Doubleday, Doran and Company, Inc. Copyright, 1903, 1931.

fusion of ideas previously discussed). We went out into the pump-house and I made Helen hold her mug under the pump while I pumped. As the cold water gushed forth filling the mug I spelled w-a-t-e-r in Helen's free hand. The word coming so close upon the sensation of cold water rushing over her hand seemed to startle her. She dropped the mug and stood as one transfixed. A new light came into her face. She spelled water several times. Then she dropped on the ground and asked for its name, and pointed to the pump and trellis, and suddenly turning round she asked for my name. I spelled "teacher." Just then the nurse brought Helen's little sister into the pump-house, and Helen spelled "baby" and pointed to the nurse. All the way back to the house she was highly excited, and learned the name of every object she touched, so that in a few hours she had added thirty new words to her vocabulary.

[The following day Miss Sullivan writes:] Helen got up this morning like a radiant fairy. She has flitted from object to object asking the name of everything and kissing me for very gladness. [And four days later:] Everything must have a name now... She drops the signs and pantomime she used before, so soon as she has words to supply their place, and the acquirement of a new word affords her the liveliest pleasure. And we notice that her face grows more expressive each day.

Speech as a personality trait. From these examples it is readily seen that language is the principal vehicle for the development of personality, because it is the essential medium through which the individual obtains his information and his attitudes. In addition, speech itself becomes a trait of personality, as has been shown by Sapir in a penetrating analysis.[1] He suggests that speech is a complicated phenomenon, but may be viewed as consisting of five aspects: voice quality, dynamics, pronunciation, vocabulary, and style. Each of these phases has its meaning for personality. We go a good deal by the voice, for example, in appraising different types of personality. The raucous bark of a backwoodsman is readily distinguished from the hushed tones of a nun. The Midwesterner can be told from the Southerner with his drawl and the New Englander with his nasal effects. The short, crisp, guttural speech of the German seems to be part of his personality, as does the fluid, flowery, voluble speech of the Spaniard. If we include certain gestures under the head of speech, as properly we may, then we see that the poker face of the Oriental helps to give him a different personality

[1] EDWARD SAPIR, "SPEECH AS A PERSONALITY TRAIT," AMERICAN JOURNAL OF SOCIOLOGY, 32:894–905, May, 1927.

quality from that of the facially animated Frenchman. Likewise, movements of the hands and shoulders in speech are regarded as part of the very core of the personalities of Italians and Jews. An interesting cultural difference is that Jews seem to use their gestures for emphasis only, while Italians depend upon them to convey part of the meaning.[1]

An instructive example of the importance of language for personality is furnished by the case of the scientist. The scientist, as such, has a specialized type of personality; he is, among other things, precise, exact, and guarded. Of course, no man is a scientist all the time, but when he functions as a scientist, we might say perhaps that he shows such traits as those just mentioned. The point to be emphasized here is that it is easier to develop the personality type of the scientist in some cultures than in others; in many cultures it is altogether out of the question. It is possible in a culture like ours, which includes symbols for very abstract ideas and measurements, but not in a culture like that of the African Sudan, which has only monosyllabic names for particular facts. In this culture differences in meaning can sometimes be conveyed only by varying the pitch. The words for "large," "medium," and "small" are the same sound in different keys.[2] Under such circumstances it is not so easy to be exact (to have the personality trait of exactness) as it is when one can say, in describing an individual, that he is five feet, eight inches tall.

Language difference between cultures, of course, simply reflect difference in the body of culture. Language helps to make the scientist, but the scientist also helps to make the language. That is to say, vocabulary grows as culture grows. In modern culture there has been a great development of mathematics and of machines, all of which enlarge our vocabulary and increase the number of symbols available for use by the scientist. Our vocabulary is rich because our culture is complex. A culture like ours, with a vocabulary of about a million words, half of which are technical terms, favors the personality trait of exactness.

[1] D. EFRON and J. P. FOLEY, "A COMPARATIVE INVESTIGATION OF GESTURAL BEHAVIOR PATTERNS IN ITALIAN AND JEWISH GROUPS LIVING UNDER DIFFERENT AS WELL AS SIMILAR ENVIRONMENTAL CONDITIONS," ZEITSCHRIFT FÜR SOZIALFORSCHUNG, 6:33–41, January, 1937. See also a popular account by V. H. BERNSTEIN, "RACIAL GESTURES DISAPPEAR," NEW YORK TIMES MAGAZINE, October 6, 1935. Assimilated Italians and Jews show no such characteristic ways of gesturing.

[2] Cited in CHARLES H. JUDD, THE PSYCHOLOGY OF SOCIAL INSTITUTIONS (New York: The Macmillan Company, 1926), pp. 191–92.

Culture Patterns and Personality Patterns

The discerning reader has no doubt made certain reservations concerning some of the relations between culture traits and personality indicated above. As for the connection between timepieces and punctuality, for example, it may be observed that the possession of clocks does not guarantee that their owners will be on time for engagements. The Latin peoples have timepieces, but they are not always so prompt as North Americans. When a Mexican makes an appointment with an American to meet at ten o'clock, he may ask if it is to be *hora inglesa* or *hora mejicana*. If it is the latter, he may start out for his appointment at 9.30, meet a friend en route and invite him to have a cup of coffee at one of the many cafés; this done, he may proceed, only to meet another friend, of whom he inquires at length as to the health of his family. When the Mexican arrives for his appointment, it is 12 o'clock. Hospitality and friendship mean more to the Latin people than punctuality in keeping appointments. From this it is seen that although material inventions as such may have significance for personality, the direction and degree of this significance depend upon the cultural situation as a whole. It is helpful to go beyond individual culture traits and consider the relation of personality to the larger aspects of culture which are known as culture patterns.

Rural cultures and hospitality

A good example is the personality trait, generosity, and its counterpart, stinginess. These traits would seem to be more inherent in one's personality, perhaps, than cleanliness or punctuality, but they can be shown to flow from culture. Farming cultures a hundred years ago had developed a high degree of hospitality. This was true, for instance, of the plantation life of the old South. The distance between plantations was great; there were very few taverns or inns. Travelers were expected to stop overnight in private homes. They were welcome, because food was plentiful, and money as a medium of exchange was not in great use. Moreover, since communication facilities were poor, travelers were relied on for news. Under such cultural conditions it is natural that hospitality should be highly developed. It is much the same in primitive society. A person who shuts his door on a traveler is almost unknown among preliterates.

In a modern city things are different. There are plenty of hotels

and restaurants. Space is at a premium in an apartment house. Food is not taken from the garden, but must be bought. There is a plethora of agencies for the dissemination of news. A multitude of interests and activities compete for one's time. Hence, hospitality does not flourish in modern cities as it did in the old South.[1]

WOMEN'S OCCUPATIONS AND OBEDIENCE

Another illustration of the influence of culture on personality is the relationship of men and women. In the late 1880's, a young woman's memory book popular in the schools of that day contained, among such questions as "What is your favorite flower?" and "What is your favorite poem?" this query, "What is your favorite trait in a woman?" By far the most usual answer was obedience. Today, not one college woman in a thousand would give this answer. Among school girls today, self-expression and initiative are probably valued more highly than obedience. Why this difference? In the earlier period, farming was the principal business. Women generally had no occupations outside the home, nor was there outside employment beckoning them; they were therefore economically dependent upon their fathers and husbands. Obedience was a natural consequence of such conditions. At the present time, millions of women work for pay, and they are not employed by members of their own family. They can go to school on more nearly even terms with men. They may vote and hold public office. They may remain unmarried and live alone without incurring public censure. These are only a few of the cultural conditions which encourage attitudes of independence in women at present.

It is not to be assumed, of course, that all females living in the latter part of the nineteenth century were equally submissive. There were, no doubt, marked individual differences. How these may be accounted for has already been suggested in part in the preceding two chapters, and will be considered further below. In addition, some discrepancy is always to be found between theory and practice; for even when the folkways favor the trait of submissiveness in women, real-life situations are often such that, for instance, a good many women have husbands whom they dominate. But the point to be emphasized is that several generations ago, obedience on the part of a young woman was both more widespread and more pronounced than it is today.

[1] An interesting note here is the lag of the hospitality-pattern in the South. As families moved into the developing cities, their relatives and friends expected to be put up and fed as they had been in the country, and they came for long visits. The city family was torn between the old habits of hospitality and the economic burden of the visit under city conditions.

APPOLONIAN AND DIONYSIAN CULTURE PATTERNS

With the growing realization of the importance of culture for personality, attempts have recently been made by sociologists and ethnologists to identify the factors in particular cultures which are responsible for giving individuals within the culture a distinctive stamp. Thus, Benedict classifies the culture of the Zuni as *Appolonian*, while that of the Kwakiutl and the Dobuans she designates *Dionysian* or *Faustian*.[1] Appolonian culture is characterized by moderation, restraint, peace; Dionysian culture is marked, on the contrary, by emotional excesses, individualism, and strife. The Zuni culture is organized to prevent too keen competition between individuals. This society frowns on anyone's trying to exalt himself above others. If the same man wins repeatedly in foot races, he is barred from further competition. Among the Kwakiutl, things are very different. Here a man's chief interest is to put others to shame, if he can. The Kwakiutl have a unique ceremony for this purpose, in which men vie with one another to see who can give away or destroy the most wealth.[2] Other aspects of the two cultures are in keeping. The effect is to produce contrasting personality types. The Kwakiutl are, among other things, more ambitious, restless, and selfish than the Zuni.

HINDU CULTURE AND PERSONALITY

Examples of the relation of culture and personality which are taken from primitive society are impressive partly because the patterns seem to contrast so sharply with our own. The same situation does, however, hold for different modern societies as well. The personality of the Hindus, for example, is on the whole in striking opposition to that of Americans. When an East Indian comes to our land and sees our life, he is likely to say we are worldly and materialistic. He, on the other hand, seems removed from reality; he is mystical, philosophical, religious. His speech is full of figures and it is more like a song. What gives this East Indian's personality such a religious, reverent, and poetic accent?

In his intimate account of his own life, Dhan Gopal Mukerji [3] shows how all these traits are impressed upon the growing child by the Hindu culture. He tells that, when he was only a tot,

[1] RUTH BENEDICT, PATTERNS OF CULTURE.

[2] See Chapter XII, "Co-operation, Competition, and Conflict."

[3] DHAN GOPAL MUKERJI, CASTE AND OUTCAST (New York: E. P. Dutton and Company, 1923).

I used to hear people before dawn making ready for the sun . . . I used to watch them from our windows when I was too little to go out alone. They lifted their hands and chanted the verses that every day, for four thousand years, have greeted the rising sun in India:

> O blossom of eastern silence, wandering upon paths dustless and untainted by the feet of man, bring thou the downward way, and be our advocate before the speechless God!

Later in the day the school children trooped by, their hands full of flowers. They were bringing them to our temple on their way to school, and they held them carefully, never smelling their perfume, as that would be considered contaminating to a holy offering. As they went, they repeated:

> Come, gather flowers for the temple!
> The wind falls like audible silence!
> The winged and the four-footed ones
> dance to mark the beat of the steps
> of silence.

They used to enter the temple and leave their flowers with my brother, who was at that time the priest in charge, and then they would go on to school singing:

> With hand dipped in the color of music and
> wisdom, bless us, O Goddess of Learning!

This is the usual custom that all Hindu children observe. Such an environment as this may not make a Tagore of every child, but it will make him respect Tagore. Children on their way to school in our culture behave differently, and with different results.

Within the home, as outside it, the religious atmosphere is overpowering. Mukerji writes that in their household his mother was the first one to rise in the morning. She would get up at five and spend half an hour in meditative silence. When the children arose, they would go to her and bow before her and "remove the dust from her feet." Every morning the little child would pay honor to his parents. To his mother he would say, "You are my God, my way to God." To his father he would say, "You are the Way and the End. O my father, teach me to find the Way."

When the writer goes on to say: "I remember every hour of our ritual, and there is a ritual for every hour of the day in India," when he points out that there were eight children besides a large household for his

mother to look after, yet she never spent less than three hours a day in meditation and prayer, then it is possible for us to see why the Hindu child acquires a personality built on "the inner life."

THE SOCIALIZATION PROCESS

The foregoing account from Mukerji gives not only a picture of Hindu personality but an explanation of how this personality is acquired. The process whereby the infant gradually takes on the attitudes and habits of his society is generally labeled by the sociologist socialization. The mechanism is essentially that of the already familiar conditioned response. The conditioning takes place in a number of ways. Prominent among them is what Thomas has called the "ordering and forbidding technique." The young child is told over and over again what he must and must not do. Commandments and taboos bulk large in the educational experience of every child, as Mead has shown so well in the case of the Manus: [1]

> But in Manus where property is sacred and one wails for lost property as for the dead, respect for property is taught children from the earliest years.... It was sometimes very tiresome to listen to the monotonous reiteration of some mother to her baby.... "That isn't yours. That belongs to Piyap. That belongs to Piyap. Put it down. That belongs to Piyap. Put it down." But we reaped the reward of this endless vigilance; all our possessions, fascinating cans of red and yellow food, photographic material, books, were safe from the two and three year olds.... Nothing is put out of the child's reach. The mother spreads her tiny colored beads out on a mat... right on the floor within the reach of the crawling baby and the baby is taught not to touch them. Where even the dogs are so well trained that fish can be laid on the floor and left there for an hour without danger there are no excuses made for the tiny human beings. A good baby is a baby which never touches anything; a good child is one who never touches anything and never asks for anything not its own. These are the only important items of ethical behavior demanded of children.

Important as direct, definite instruction is in the socializing of the child, even more important probably is the effect of indirect, unconscious influence such as is provided by what is commonly called the "atmosphere" of the setting. The child is constantly bombarded by the suggestions of his cultural milieu. Conscious and unconscious imitation

[1] GROWING UP IN NEW GUINEA, pp. 32–33, from THE SOUTH SEAS, copyright, 1928, 1930, 1935, 1939, by MARGARET MEAD. By permission of William Morrow and Company, Inc., and George Routledge & Sons, Ltd.

also play a part. All these factors are visible in the case of the acculturation of the Hindu child cited above. A comparable situation is that of the child reared in a good Catholic home in this country or elsewhere: [1]

> From the beginning certain material religious representations are present in the baby's room; a crucifix or a statue of Christ or a picture of Christ. Almost invariably there will be a Madonna. Over and over again the little child is told the Christ story. About his neck he wears a gold chain, from which hangs a medal of Jesus or Mary. He can both see and feel it. At his cribside he hears the saying of prayers by the members of his family. When Christmas comes, he sees beside the tree a miniature representation of the crib of Bethlehem. When he begins to talk, he is taught the "Our Father" and "Hail Mary." He will now trace the sign of the Cross and say prayers. From time to time he will be taken to church. He will early come to know the nature of Mass. At the age of seven the obligation to hear Mass falls upon him. Now he makes his First Communion. That First Communion is surrounded by all the pomp and solemnity possible, and the experience is burned into the consciousness of the child.

When the vigor and pervasiveness of Catholic culture are thus noted it is not difficult to see why it leaves such deep impressions on personality.

THE FLEXIBILITY OF HUMAN NATURE

A wide range of examples have been marshaled in this chapter to suggest the impact of culture on personality. The purpose has not been merely one of repetition for the sake of emphasis; rather, the many examples should serve to show how variable human nature may be. Limitation of space has allowed reference to only a few personality traits, but others might have been chosen as well, and the instances multiplied almost indefinitely. Any trait may be taken and a wide range of differences shown for different cultural situations. As already shown, Indians as a group endured pain better than did the white men. It may be added that some Indian groups do much better in this respect than others. Almost surpassing belief is the stoicism of the Comanche and the Blackfeet, who would submit to having their hearts cut out without show of pain. In regard to cleanliness, alluded to above, the range would run from the extreme filthiness of some primitive and peasant groups to the surgical cleanliness of physicians of the present day. And

[1] Adapted from J. E. Ross, "RELIGIOUS WORSHIP IN THE LIFE OF THE CATHOLIC CHILD," RELIGIOUS EDUCATION, 26:714–18, November, 1931.

as for devoutness, to which some attention has also been given above, there is a considerable difference between the Hindu devotee immersed in religion and the Russian Communist who just as thoroughly rejects it. The range of culture differences and hence personality differences is so great that those at one extreme scarcely regard those at the other end as human.

It is a far cry from a Borneo headhunter to a pacifistic Quaker, but both are human. The differences between them simply testify to the plasticity of human nature. "Man is one," wrote Goldenweiser,[1] "civilizations are many." A Borneo child among Quakers would be peace-loving; not so the offspring of Quaker parents brought up by Borneo headhunters. It is doubtful if Indian children educated in government schools today are as stoical as were their sovereign ancestors. It is reported that Englishmen living in Italy who intimately identify themselves with the life of the Italian community lose their reserve and take on the gestures of the Italians. Indeed, as the following observation by Faris suggests, the pressure of culture in some cases succeeds almost in turning human nature inside out: [2]

> Ethnological studies have no more important lesson to teach the sociologist than the lesson of the almost limitless adaptability of the human animal. Given an uncontradicted cultural medium and we can see that the powerful drives of hunger, sex and even the will to live are as nothing if they run counter to the mores. Confirmation of this is familiar to us all. Voluntary fasting, voluntary celibacy, voluntary mutilation and torture, voluntary suicide — examples abound to show the irresistibility of the cultural model. One can no more organize his personality independently than he can be born without a mother.

The old saying that human nature cannot be changed is seen to be false. Ellwood [3] came nearer the truth when he observed that human nature is "one of the most modifiable things we know." Of course, there are limits to the variability of human nature as we find it the world over. "A man's a man for a' that." For instance, human beings everywhere show anger and it is doubtful if this emotion can be entirely repressed. But certainly human beings in different cultures vary greatly in the

[1] A. A. GOLDENWEISER, EARLY CIVILIZATION (New York: A. A. Knopf, 1922), p. 14.

[2] ELLSWORTH FARIS, THE NATURE OF HUMAN NATURE (New York: McGraw-Hill Book Company, 1937), p. 279.

[3] CHARLES A. ELLWOOD, THE PSYCHOLOGY OF HUMAN SOCIETY (New York: Appleton, 1925), p. 107.

frequency with which anger is shown, the degree of the emotion, the way it is manifested, and the occasions that call it forth. Within broad biological limits, human nature is highly plastic. Though human nature has this very great plasticity, it does not follow that any degree of modification of human nature yields the same degree of adjustment to biological nature. We may train ourselves to get along with four hours of sleep or with ten hours. Man's nature is thus plastic. But it is quite possible if the modification is stopped at some point around eight hours, instead of four hours, that a better adjustment between biological nature and environment is secured. To point out the plastic nature of habits leaves somewhat unanswered the question of what is the best habit. Thus the adjustment of culture and heredity raises the question of the degree of adjustment as well as the limits of plasticity. This question is discussed further in Chapter XXVIII.

CULTURAL VARIATIONS WITHIN A CULTURE

Important as cultural influences are for personality, it would be a mistake to gain the impression that culture is a massive die that shapes all who come under it with an identical pattern. All the people of a given culture are plainly not of one cast. This is true even in primitive society. Men differ in personality from women, and both from their children. Priests and shamans have traits which set them off from the other men. Personalities differ within a culture partly because the culture makes different claims upon different groups of persons. This fact has been pointed out by Linton,[1] who suggests a useful classification of cultural influences. In every culture, he remarks, there are a few cultural traits which impinge on all the members of the society. These traits which affect everybody are the universals. Among such traits are language, costume, housing, and the group ideals. Then there are other aspects of culture which apply only to certain groups in the population and not to others.[2] There is, for example, always a division of labor between men and women, and almost invariably, different standards of conduct for the two sexes. Each occupational group likewise has its own special cultural context. There is a distinct set of activities and even vocabulary for each vocation, which results in unique "voca-

[1] RALPH LINTON, THE STUDY OF MAN (D. Appleton-Century Company, 1936), chap. XVI.

[2] "We see ... that elements of culture that come well within the horizon of awareness of one individual are entirely absent in another individual's landscape." E. SAPIR, "THE EMERGENCE OF THE CONCEPT OF PERSONALITY IN THE STUDY OF CULTURES," JOURNAL OF SOCIAL PSYCHOLOGY, 5:408–15, August, 1934.

tional attitudes." These aspects of culture, which affect special groups only, Linton designates specialties. Lastly, there are in all cultures what he calls alternatives, or different ways of meeting the same need. For instance, individuals have open to them a variety of approved ways of satisfying their craving for recreation and amusement. Practically every culture, primitive as well as modern, has a great assortment of games and sports from which choices may be made. In respect to children's games, some preliterate cultures show as much variety as do some modern societies.

It will be seen from this analysis that culture makes for uniformity of personality only through the universals. Since universals even in primitive society are few in number as compared with specialties and alternatives, the effect of culture is to make for variety as well as uniformity.

Personality differentiation and culture. Individuals in the same primitive society differ in personality because they are exposed to different cultural influences. This fact is sometimes slighted by those who emphasize the complexity and heterogeneity of modern culture by contrasting it with the simplicity and homogeneity of primitive culture. Primitive culture is relatively simple and unified, but this does not mean that it is uniform. As has been shown, for example, children are treated differently from adults in primitive society, even as they are with us. Further, children who belong to special groups are given special attention. Among the Samoans [1] a young girl is selected to be the official hostess for the village. This girl, or *taupo*, as she is called, undergoes a special course of training to fit her for her particular duties. She is taught to be a willing servant to the social needs of both men and women of the village. In addition, she waits upon strangers, makes their *kava*, spreads their mats, dances for them, and makes them feel at home. She must have a knowledge not only of the social makeup of her own village but of all the neighboring villages as well. She must know how to serve all visitors and the various chiefs of her own village according to their rank. Her husband is chosen for her by the talking chiefs and their wives, who also serve as counselors and chaperones. Service and self-denial are two outstanding personality traits that have to be cultivated by the *taupo*. Failure to maintain these standards leads to prompt punishment. As a *taupo*, however, she receives a portion of the chief's wealth, a court of maids, respect and courtesy from the wives of the chiefs, and honor from the entire community.

[1] MARGARET MEAD, COMING OF AGE IN SAMOA.

Likewise the eldest son of the chief is given special training and consideration. Indeed, since there are classes in the society, children on each social level have experiences and are subject to cultural pressures which are peculiarly their own. Even among preliterates, then, culture differences lead to variations in personality.

It is even more true in modern society that culture produces variety as well as uniformity of personality traits. Especially is this true in the United States, partly because the culture is not whole cloth but instead a patchwork of many different pieces. It is one thing for a child to grow up among the "Pennsylvania Dutch," another for him to be reared among the Utah Mormons, and quite another still for him to be educated among the California Molokans, to mention only a few of the special cultures found in this country.

Even in other modern countries where the culture is more homogeneous, there is still variety. Modern culture is so vast that no individual can encompass it entirely; what the child experiences depends on the portion of the total culture with which he is brought in contact. Since particular groups act as custodians for certain portions of the social heritage, what the child learns depends on the groups with which he is identified. A child will be affected, for instance, by the social class to which he belongs. He may acquire the culture of an aristocrat or that of a sharecropper. If the class barriers are not too high, a person may later in life move from one class to another and thus come under the influence of a new body of culture. He may leave the Ghetto or Little Sicily for the Gold Coast.

Again, the sort of home a child comes from gives him a certain stamp. He may become a Huckleberry Finn or a Little Lord Fauntleroy. His play groups will mold him, too. He may acquire the culture of an Eagle Scout or the culture of a captain of the Black Hand Gang. His religious group will also shape him. He may learn to attend mass and the confessional, or to keep the Passover and say Kaddish, or to attend Wednesday night prayer meeting. Later, the schools will likewise make their contribution. He will learn, among other things, to make musical instruments as well as to play them, if in childhood he attends the progressive Lincoln School in New York City. It is safe to say he would not acquire this culture at the Goshen Center Little Red Schoolhouse. Later, the college he chooses further determines his cultural patterns. He gets one set of patterns if he goes to Bennett's Business College, a different set if he attends Dartmouth, and a still different set if he studies at

the California Institute of Technology. We may mention finally the influence of the occupational group he joins. The facts, habits, and attitudes he acquires if he becomes a soldier will not be those he would add if he became a priest, or an engineer, or a farmer, or a teacher. These examples emphasize the point that a complex culture such as ours is capable of producing a very large assortment of personalities.

SUMMARY

Confronting the child at birth is a ready-made culture. To its influence he must submit. The relationship, to be sure, is not entirely a one-sided affair. Each child is a dynamic individual with a unique way of responding to stimuli. The figure of speech of the potter and the clay, which is usually employed to picture the process of socialization, is a poor one; but even so, in the give and take process which does exist, the odds are overwhelmingly on the side of culture.

What the child gets from his culture are things such as clothes, tools, and skills like speech and occupations. These have both a direct and an indirect effect on his personality. In addition, culture undertakes specifically to shape his attitudes and habits through such avenues of influence as folkways, customs, and group ideals. In this chapter, these aspects of culture have been grouped under the two heads, material and non-material, and the bearing of each on personality has been indicated. As for the former, examples have been provided of the influence of the technology of plumbing on the formation of habits and attitudes favorable to cleanliness and the relation of timepieces to punctuality. As for the connection between non-material culture and personality, speech afforded an instructive example, both as a personality trait in its own right and as a medium for the acquisition of other traits. Most important in their effect on the human personality, however, are the larger patterns of culture known as social institutions. The reader has seen how influential they are in determining whether persons are submissive or assertive, hospitable or inhospitable, religious or impious.

Human beings are alike the world over in their fundamental needs and functions; on this account human nature is basically the same everywhere. But the way in which these basic drives are satisfied varies enormously, different cultures giving different direction to their expression. The result is that, for any basic trait, like anger, the direction and degree of expression vary amazingly as one passes from one society to another. It may be true that human nature never changes in that men always show the anger, or fighting, impulse; it is everlastingly changing, however, in respect to the things for which men are willing to fight. No one would have difficulty in distinguishing a cold-blooded Comanche warrior from a Quaker fighting for peace.

To ask how the child acquires his culture is to ask how he learns. The process is not entirely clear, but it is essentially one of conditioning.[1] From a practical point of view it is helpful to think of the child as confronted with certain cultural models which he either consciously or unconsciously follows. How these models function was seen in the case of the child acquiring his religion in an orthodox Catholic home. The experience is partly one of definite instruction by parents and other persons (custodians of culture), and partly one of suggestions released by the cultural milieu itself.

There is in every culture what might be called a division of learning. That is, individuals come under different aspects of the social heritage, so learn different things and develop distinctive personalities. Many factors determine the phases of culture an individual will experience, but in general it may be said that the governing one is the individual's group affiliations. Thus, men and women in Australia belong to separate groups, each having its own special experiences. The men belong to religious clubs from which the women are excluded. The men invoke hoaxes to keep women afraid and timid. The sound of a bull-roarer, which the men make, is attributed by the women to the tribal deities. A comparable example in our society might be the exclusion of women from political clubs in New York City. However this may be, it is true that what an individual becomes depends on the groups in which he participates, particularly when culture is as vast and complex as ours today. Since different individuals in the same society have distinctive cultural experiences, they develop dissimilar traits of personality.

Having reviewed the content of the present chapter, it might be well to cast a glance back at the two preceding chapters also, since the three chapters together form a unit. Our central problem thus far in Part III has been to account for the personality which any given human being develops; in Dorsey's phrase, to ask "how he got that way." There is no accounting for a given person without reference to all four factors which play a part in his life: heredity, geography, inter-personal relations (group), and culture. In actual experience, of course, the four factors work together, fusing into a whole, so that separation of the various parts is no longer possible. Even so, we are often curious to know what proportion of each ingredient went into the making of particular traits.

It is well to note that the same personality trait can often be produced

[1] The process was discussed more fully from another point of view in Chapter VI, "Group and Personality."

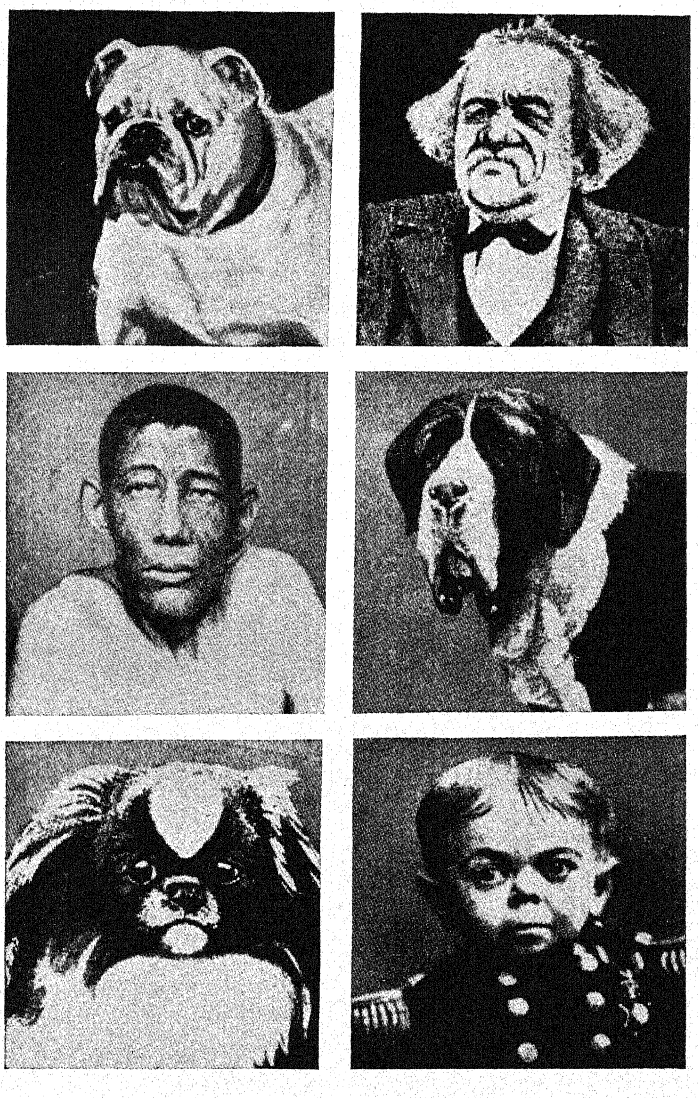
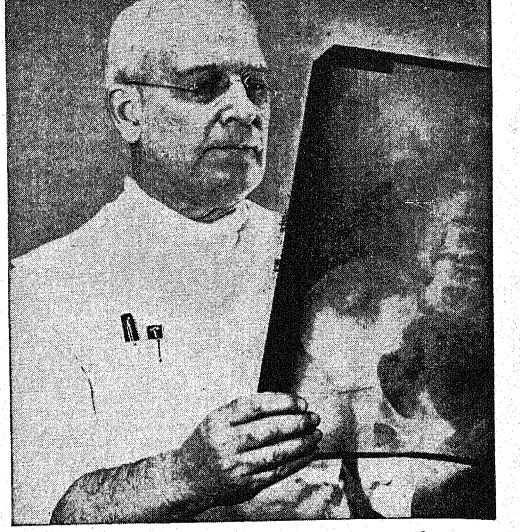


PLATE 2. GLANDS AND PERSONALITY

Variations in the glandular equipment of animals and men lead to differences of physical structure. Do they also lead to differences in behavior and personality? (For another theory of personality see reverse side.) C. R. STOCKARD, PHYSICAL BASIS OF PERSONALITY (*New York: W. W. Norton and Company*).



Lambert



Lambert



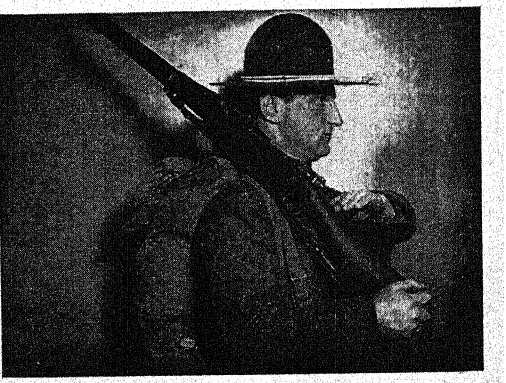
Acme



F. E. Williams



Camera Guild



Keystone

PLATE 3. OCCUPATIONS AND PERSONALITY

by varying any one of the four components. The trait of dominance, or leadership, may be due to inherited and constitutional causes affecting the glands. Some children observed in the nursery school are aggressive at a very tender age, before the environment has had a chance to influence them much in this way. But a child who is not dominant naturally may become aggressive because of too much domination at home, or because of ridicule by the gang; that is, because of inter-personal, or group, factors. Again, a child who is normally not very assertive may perhaps be rendered more energetic by environmental pressures, such as the frequent prospect of famine or constant danger from attack by wild animals, as may be the case in primitive society.[1] Finally, training or cultural experience may convert a submissive child into an assertive one.[2]

QUESTIONS FOR DISCUSSION

1. Does modern culture promote any traits of character which are not to be found among preliterates?
2. When off duty, are railroad engineers more punctual than other people in keeping appointments?
3. How have the personality traits of women in America changed with changes in culture?
4. "John Dewey has said in all seriousness that the part played by custom in shaping the behavior of the individual as over against any way in which he can affect the traditional custom, is as the proportion of the total vocabulary of his mother tongue over against those words of his own baby talk that are taken up into the vernacular of his family." (RUTH BENEDICT, "THE SCIENCE OF CUSTOM," in THE MAKING OF MAN, The Modern Library, New York, 1931, p. 807.) Discuss.
5. "The ethical philosophy of Confucius written two centuries before Plato has been the constantly accessible textbook, and its concepts have been absorbed even by the illiterate. One cannot find Chinese who are not polite according to the

[1] In the main, however, the geographic factor was shown to be of negligible significance for personality, and not of equal importance with the other three factors. Cf. Chapter IV, "The Influence of Geographical Environment."

[2] LOIS M. JACK, "AN EXPERIMENTAL STUDY OF ASCENDENT BEHAVIOR IN PRE-SCHOOL CHILDREN," UNIVERSITY OF IOWA STUDIES IN CHILD WELFARE, 9:7–65, 1934.

Confucian code." (H. A. MILLER, "SOCIAL PROCESS IN ASIA," in SOCIAL PROBLEMS AND SOCIAL PROCESSES, p. 16.) Discuss.

6. Why is language such an important factor in the development of the personality? What does a person's speech reveal about his personality?
7. How may the personality trait of exactness in a scientist be partly a function of the language of his culture? What other cultural traits are involved?
8. What is meant by the socialization process, and what is its significance for personality?
9. How does Linton account for the fact that there are great variations of personality within a single culture? Is his explanation adequate?
10. Why does there tend to be greater differentiation of personality in modern culture than in primitive?
11. How do the factors of heredity, group and culture interact in the formation of the personality? Are certain traits always brought about by the same types of causes?
12. Do animals have personalities? Defend your position.
13. How can you reconcile Ellwood's statement that human nature is one of the most modifiable things in the world and Goldenweiser's observation that civilizations are many but man is one? In what respects are all human beings alike? Different?

TOPICS FOR REPORTS

1. Physical courage of the Blackfeet Indians.
2. Personality differences of lawyers and doctors in our culture.
3. The personality traits of Manus children. (MARGARET MEAD, GROWING UP IN NEW GUINEA. New York: Morrow, 1930.)
4. Culture and personality of the Chinese.
5. Culture and personality of Quakers.
6. Some beneficial effects of intense personal competition in our culture.

SELECTED READINGS

BENEDICT, RUTH, PATTERNS OF CULTURE. Boston: Houghton Mifflin Company, 1934.

How some more or less intangible elements of culture ramify widely through society is shown excellently for certain American Indian peoples.

JUDD, CHARLES H., THE PSYCHOLOGY OF SOCIAL INSTITUTIONS. New York: The Macmillan Company, 1926.

In this valuable book it is shown how habits — that is, phases of personality — vary according to the adjustments made at different times to social institutions and to material objects of culture.

KARDINER, ABRAM, *et al.*, THE INDIVIDUAL AND HIS SOCIETY. New York: Columbia University Press, 1939; and THE PSYCHOLOGICAL FRONTIERS OF SOCIETY. New York: Columbia University Press, 1945.

These outstanding books develop a technique for interpreting personality in terms of culture, with applications to two primitive societies and a rural community in the Middle West.

LINTON, RALPH, THE CULTURAL BACKGROUND OF PERSONALITY. New York: New York and London, 1945.

Five essays which attempt to bring together anthropology and psychology in the study of personality by providing a common terminology and frame of reference.

MEAD, MARGARET, COMING OF AGE IN SAMOA (New York: W. W. Morrow Company, 1928), and GROWING UP IN NEW GUINEA (New York: W. W. Morrow Company, 1930).

Not many books exist on the education of the children of preliterate races and fewer are informative as to how the educational process leads to personalities in cultures radically different from ours. For this reason these two books are valuable.

MEAD, MARGARET, SEX AND TEMPERAMENT IN THREE PRIMITIVE SOCIETIES. New York: W. W. Morrow Company, 1935.

In this very readable book three widely differing cultures are described. It is shown how the children grow up with differing personalities in these different neighboring cultures.

PLANT, JAMES S., PERSONALITY AND THE CULTURE PATTERN. New York: The Commonwealth Fund, 1937.

The approach is from the point of view of psychiatry and is suggestive rather than balanced and definitive.

VIII. PERSONALITY DISORGANIZATION

TO LOOK upon the bright, smiling faces of high-school seniors at commencement time in such a great commonwealth as New York, one would never guess that at least one out of twenty will at some future time be found in a hospital for the insane. But unfortunately this is the case. On January 1, 1935, the population of the hospitals for mental diseases in the United States was 450,000, or 1 for every 200 adults over 20 years of age. The number admitted per year to hospitals for mental disorders is 1 for every 600 adults over 20 years of age. An adult is exposed more than one year, however; his period of exposure is nearer forty years. Hence, the chances of an individual's being placed in a hospital for the insane are greater than 1 in 600. They are nearer 40 in 600, or 1 in 15. Such calculations have been carried out more accurately for New York and Massachusetts, where hospitalization facilities are somewhat more generous than in other states. The chances in these states of a boy or a girl of high-school age being placed in a hospital for the insane sometime during his or her life are about 1 in 20. The probability of developing a serious mental disorder, whether sent to a hospital or not, is even greater — nearer 1 in 10.

TABLE 6. CHANCES IN 100 OF EVENTUALLY BECOMING A PATIENT IN A HOSPITAL FOR MENTAL DISEASE IN NEW YORK STATE AND MASSACHUSETTS; BASED ON FIRST-ADMISSION RATES FOR 1929–31*

Age	New York State		Massachusetts	
	Men	Women	Men	Women
0	5.5	4.9	5.7	5.3
10	6.1	5.4	6.3	5.7
20	5.9	5.3	6.1	5.6
30	5.3	4.8	5.6	5.2
40	4.6	4.2	4.9	4.6
50	3.9	3.5	4.3	4.0
60	3.4	3.1	3.8	3.4
70	3.1	2.8	3.6	3.2

* From C. LANDIS and J. PAGE, MODERN SOCIETY AND MENTAL DISEASE (Farrar and Rinehart, 1938), p. 32, Table III.

No other type of sickness, indeed, perhaps no other problem of any kind, causes so much anguish to families as mental illness. The grief is no doubt justified in part. A mental patient is often in a peculiar situation. Like a child, he may be unable to help with his problem. Even more distressing, he may be unable to communicate meaningfully, hence we feel completely cut off from him. But much of the family's distress is generally due to misconceptions of one sort or another. Insanity is just another form of illness, no more reprehensible than physical disease and sometimes only the consequence of such disease. Ignorance of this fact is in large measure responsible for the widespread feeling that there is something shameful about mental disorders. There is also the mistaken notion that insanity necessarily reflects unfavorably on the family stock. It is not sufficiently understood that insanity may have its roots in experience as well as in heredity. As we shall see below, mental disorders may be due to factors in an individual's natural environment, group relations, or cultural experience, as well as in his heredity. Personality is shaped by all four factors; it does not seem plausible that all mental disorders would be due to hereditary factors only. It is of the utmost importance therefore for the student of sociology to consider this problem of personality disorganization.

Nature of Mental Disorders

Varieties of social maladjustments

There are a number of different types of abnormal individuals in society. The insane, who make up one of these groups, are better understood if they are set off against the feeble-minded, with whom they are often wrongly identified. The feeble-minded are lacking in intelligence; theirs is a problem of quantity of mental power. Insanity, in contradistinction, has reference to the quality of mental life. The feeble-minded may be compared to a motor vehicle which has a very small number of cylinders and spark plugs; whereas in the insane the number of cylinders and spark plugs may be large, but for one reason or another they miss fire. It will be seen from this that bright, powerful minds may go awry.

It is clarifying, also, to distinguish between the insane and the anti-social, such as criminals and prostitutes. There is no necessary relationship between these two types of abnormals. The anti-social are predatory and do harm to social life. Those who develop a mental disorder may become anti-social; they may, for instance, become criminal.

Healy observed that one of the principal causes of delinquency among children is mental conflict, or intense worry.[1] Likewise the tables may be turned, and a person may develop a mental disorder because of some social transgression, like stealing, about which he later feels ashamed. Of this the reader will see more later. But here it should be noted that the interrelationship between insanity and anti-social conduct is not an essential one. As has already been suggested, most criminals are normal individuals, so far as their mentality is concerned. Their transgression means only that they have developed along different lines from those persons who keep within the law, and consequently have different attitudes and reactions. Likewise, many individuals with peculiar mental twists, far from being harmful to the community, are very useful. In a later chapter on religion, the reader will see this is often true of the shaman, or medicine man, in primitive society. Among us there are not a few individuals of great social worth who are very peculiar in their personalities. A greatly wounded ego may be responsible for a good deal of social achievement; the man who is perfectly adjusted may lack ambition, but the neurotic individual may find in his dissatisfaction and restlessness a tremendous source of energy that drives him on to achievement. There may be some social benefits accruing from personality disorganization. A good deal depends on the type and degree of disorganization, as well as on the total configuration of the individual's life. The problem is a complicated one.

When is a person psychopathic? Light on this problem can be had by further reference to the criminal. It will be recalled that no sharp line divides the criminal from the non-criminal. There is experimental evidence to show that most children will steal if the provocation is great enough. Honesty is a matter of degree. In the same way sanity is a matter of degree. The insane do not constitute a separate species. The traits they show are manifested by normal beings, too, only in milder form. To cite but a single instance, a person who imagines he is Caesar or Napoleon is said by the psychiatrist to be a paranoiac with a grandiose complex; yet most people indulge in daydreams and like to imagine on occasion that they occupy positions of great power and importance. Insanity is thus a matter of differences in degree, not a matter of differences in kind. The insane, indeed, serve a useful purpose; through them, as through a microscope, we see our weaknesses magnified.

There is another aspect of insanity worth noting, and again a useful comparison may be made with crime. The criminal is not anti-social at

[1] WILLIAM HEALY and AUGUSTA F. BRONNER, MENTAL CONFLICTS AND MISCONDUCT.

all times and in every aspect of his experience; his criminal behavior may be only a small part of his total activity. Likewise, an insane person is not necessarily peculiar in every particular. His illness may be limited to only a single aspect of his personality. In all other respects he may be perfectly normal. A person may have a neurosis and yet carry on fairly well otherwise. As recent studies by mental hygienists have shown, the annals of literature contain the names of many men like Ruskin, Poe, De Quincey, Whitman, Nietzsche, Southey, Rousseau, Cowper, and Schopenhauer, who combined eminence with a mental disorder.[1]

In general, it may be said that persons are psychopathic when they respond to stimuli in a confused or distorted manner. We compare them with ourselves, that is, with what we expect, and if they deviate widely we class them as abnormal. If the disorders are slight they are called neuroses, or simply nervousness. Those that are more serious, or which incapacitate the individual for life in society, are called psychoses by the physician and insanity by the layman. The early psychiatrists were concerned with working out elaborate classifications, which became almost as numerous as the psychiatrists. The scientific study of mental disorders being rather recent, much understanding is still to be desired regarding them; one writer reports concerning schizophrenia, our most common form of psychosis, that there is much confusion as to what it is but that two characteristics are generally accepted: "eccentric" behavior and seclusiveness (except for the catatonic type). Under the circumstances, many authorities think it may be better for the present to attend less to cataloging neuroses and psychoses and more to identifying constellations of symptoms among such types of behavior as chronic restlessness or fatigue, deep depression, hysteria, morbid fears, feelings of persecution, compulsions, intense elation, hallucinations, and delusions. The problem of defining and diagnosing mental disorders is in any case one for the psychiatrist, not the sociologist.

Causes of Mental Disorders

ORGANIC AND FUNCTIONAL DISORDERS

There is often a great deal of uncertainty about the causes of mental illness. It is known in some cases that the roots of trouble are definitely

[1] Louise A. Nelson, "why john ruskin never learned how to live," mental hygiene, 12:673–705, October, 1928; Paul C. Squires, "the case of dickens," journal of abnormal and social psychology, 30:468, July–September, 1935.

organic. Some of these organic conditions are of an hereditary nature, as in Huntington's chorea and certain types of epilepsy. Others are due to factors of the natural environment, such as the disease germ of syphilis, capable of causing dementia paralytica. Drugs, other diseases, and physical impairment of certain sorts may affect the constitution in such a way as to disorder the mind. Such factors as excessive use of alcohol, encephalitis, brain tumor, arterio-sclerosis, and glandular difficulties, may be responsible for impairing the nervous system.

However, for a great many cases (roughly about half of the total number) no physical basis can be found with the instruments of diagnosis now available. These cases are therefore called functional disorders, and the assumption is that the causes must be sought in group and cultural experience rather than in physiology. Even when a constitutional basis is present, as in the case of glandular imbalance, it is well to remember that the physical condition may be the result rather than the cause of the trouble. It was earlier shown that the pace of life affects the glands, and this in turn may affect the mind. On the other hand, those who emphasize the physical basis of mental disorders say that constitutional factors will yet be uncovered in the case of the so-called functional disorders, when instruments of diagnosis are improved. Moreover, they say, even if constitutional conditions are not found, heredity must still be considered a factor. Their argument is that since some individuals survive stresses that crush others, the difference must be due to inherited differences in ability to resist strain. This line of reasoning may have merit; possibly individuals do differ in the inherited strength of their nervous systems. But the unequal resistance of individuals to stress may also result from differences in experience and training. Even as the Indian, because of his special training, was able to withstand pain better than the white man, just so some individuals in our society are better prepared by experience to meet the trials of life than others are. This conclusion does not mean the biological factors deserve to be slighted, but only that sociology is primarily concerned with exploring the social aspects of the problem.

Studies of the incidence of psychoses among identical twins throw some light on this problem. In such cases, as the hereditary factor is constant, differences must be due to variations in experience. As part of a larger study, Rosanoff[1] investigated the incidence of insanity in 41

[1] AARON ROSANOFF *et al.*, "THE ETIOLOGY OF THE SO-CALLED SCHIZOPHRENIC PSYCHOSES WITH SPECIAL REFERENCE TO THEIR OCCURRENCE IN TWINS," THE AMERICAN JOURNAL OF PSYCHIATRY, 91:247–86, September, 1934.

pairs of identical twins and 101 pairs of dissimilar twins. Where one patient was schizophrenic, the identical twin brother or sister was also schizophrenic in 61 per cent of the cases. For dissimilar twins the corresponding figure was only 10 per cent. These figures might be interpreted as indicating a specific hereditary factor in schizophrenia. Yet it is seen that in about one third of the cases only one twin was affected. If heredity were the sole determining factor, both twins should have been affected. Also, in interpreting the high incidence of psychoses in both members of pairs of identical twins, it might be well to consider whether such twins are not more apt to have similar experiences than are dissimilar twins. In another study,[1] it was found that dementia praecox was more common among mothers than fathers of dementia praecox patients. If heredity alone were responsible, the number of psychoses would be the same for both parents, since each contributes approximately 50 per cent to the child's heredity. The greater incidence among mothers indicates that social factors are present, and confirms the point made in a preceding chapter, that children are conditioned by their mothers more than by their fathers.

A number of different kinds of experience may be responsible for mental breakdowns. It goes almost without saying that the experiences which lead to mental disorders are those which are painful. The individual finds himself in a situation which he violently dislikes. He wishes things were different. Wish frustration is thus at the root of the difficulty.

Mental conflict as a cause of disorganization. During the World War a considerable number of soldiers experienced "shell shock." They developed disabling symptoms, such as paralysis or blindness, so they could no longer serve actively at the front. Medical examination would often fail to reveal any physiological bases for these symptoms. It therefore appeared that the difficulty was of a psychological sort. These men were afraid of war. They were overwhelmed with the horror of mutilation and death. They wished greatly to run away. But they were soldiers with a duty to perform. If they deserted they would be branded cowards. They could not stand the thought of such disgrace. Here was a powerful clash of wishes. In these cases the problem was solved, unconsciously, by taking on physical symptoms which are accept-

[1] HORATIO M. POLLACK, BENJAMIN MALZBERG, and RAYMOND G. FULLER, "HEREDITARY AND ENVIRONMENTAL FACTORS IN THE CAUSATION OF DEMENTIA PRAECOX AND MANIC-DEPRESSIVE PSYCHOSES," PSYCHIATRIC QUARTERLY, 7:450–79; 8:77–79, 337, 553–59; 9:129–42, 287–96, July, 1933; January, April, and July, 1934.

able excuses for inaction in our culture. After the Armistice, there were many sudden cures.

A clash of irreconcilable desires produces what is known as a mental conflict. Since human desires are for the most part socially determined, mental conflicts are the products of experience. Indeed, mental conflicts often merely reflect conflicts that exist in culture itself. In the case of the war neuroses described above, the cultural factors are very plain. On the one hand our culture, unlike many primitive cultures, shields individuals from pain; on the other hand we have the idea that a man is a coward if he runs away from the enemy, who may hurt him. The strength of the cultural pressures is important, as may be seen from the fact that there were relatively more cases of shell shock among British than French soldiers. French soldiers who felt afraid were more likely to say so, not so likely to feel ashamed of their fear. This reflects a real difference in the teachings of the two cultures — a difference which gets its significance from the fact that the sense of shame plays an important part in mental breakdown. Sherman goes so far as to say it is doubtful if a psychosis ever develops unless there are strong feelings of guilt.[1]

Common mental conflicts in our culture have to do with sex, money, religion, and social status. These are the things with which we are greatly concerned. They are the things, too, around which society places stringent taboos. For example, in regard to sex education our culture by and large has long favored "the conspiracy of silence." Many children as a result grow up with wrong and harmful attitudes, which in turn lead to conflicts. Likewise, the conflict of science and fundamentalist religion finds its counterpart in the mental conflicts of certain individuals. Religious ideas concerning sin are also partly responsible for the feelings of guilt which individuals may have and which, as has been shown, underlie their mental distress. Conflicts centering around money, or occupation, or social position are likewise culturally determined. Economic depressions cause mental anguish on a large scale.

The way in which social experience operates to produce a mental conflict may be illustrated by the case of Hans, a five-year-old boy who developed a phobia for streets, horses, and moving-vans.[2] Hans, like little boys generally, had a close relationship with his mother, but in

[1] MANDEL SHERMAN, MENTAL HYGIENE AND EDUCATION (New York: Longmans, Green and Company, 1934).

[2] SIGMUND FREUD, "ANALYSIS OF A PHOBIA IN A FIVE-YEAR-OLD BOY," COLLECTED PAPERS, vol. 3 (London: Hogarth Press, 1925), pp. 149–289.

Hans' case this was intensified by his mother's excessive display of affection for him. As he grew older and began to show a more definite and conscious interest in sex, his relationship with his mother changed abruptly. He was curious about reproduction, but instead of getting the facts, he was told the familiar fable about the stork. His natural interest in his own sex anatomy was balked by his mother. On one occasion she threatened him with castration if he engaged in auto-erotic practices. When Hans was three and a half years old, a baby sister arrived. He was very jealous of her, and whenever anyone praised her, he would declare scornfully: "But she hasn't got any teeth yet!" Shortly after, he was taken ill, and in his fever was heard to say: "But I don't want a little sister!" Here we see the elements of Hans' conflict: on the one hand his strong desire for his mother's affection, and on the other, his rejection by her. His longing for his mother, which he had unsatisfactorily repressed, was manifested first as a generalized morbid anxiety, and then attached to a series of objects, such as the horse and the moving-van.

Culture and Personality Disorganization

The above case suggests that no psychosis can be understood without knowledge of the individual's past. A detailed life history is needed, in which the principal experiences which have shaped the personality are recorded. Especially important are the experiences of the early years centering in family life. Only in this way may the social situations which have left their disfiguring marks on personality be revealed.

The student of sociology needs to note that back of all parents and all children are great cultural forces; Hans' mother and father merely gave expression to the traditional sex taboos of our society. It is true, as Alexander says, that "the main aim is to understand each individual in terms of his own life history," [1] but even so, often this history cannot be adequately appreciated without taking the larger cultural forces into account. It is even more true that unless we know the culture we cannot understand why the number of boys who develop certain disorders is greater in some societies than in others. It is therefore important to consider the larger aspects of the problem. It is worth inquiring why some societies have a great deal of mental disorganization, and why others have very little.

[1] Franz Alexander, "psychoanalysis and social disorganization," the american journal of sociology, 42:781–95, May, 1937.

MENTAL DISORDERS IN PRIMITIVE SOCIETY

A most illuminating approach to the problem of personality disorganization is through the study of comparative cultures. The evidence, unfortunately, is not all it might be. Few peoples keep accurate records, or for that matter even have hospitals for the insane. Many of the available accounts are clearly impressionistic, not factual. Even with all these limitations, the evidence is highly suggestive of the importance of the cultural milieu in the production of psychoses.

Faris reports the relative absence of insanity among the Congo Bantu of the Equatorial Rain Forest. He visited four large hospitals which draw patients from a wide area in this region, inquiring as to the extent of schizophrenia and manic-depressive psychoses, our two chief forms of insanity. There were no records of even a single case, and no member of the staff could recall ever having heard of one. To the natives of the villages, Faris tried to explain the symptoms, but they seemed to mean nothing to these peoples. Faris therefore concludes that "such disorders are very rare and possibly do not occur." [1] Likewise, it is the general opinion that the graver psychoses were certainly rare among the American Indians. Benedict reports that suicide is not only unknown among the Zuni, but it is incomprehensible to them as well. "The more particularly you illustrate the practice of suicide to a Zuni audience, the more politely and smilingly incredulous they become." [2]

Such reports make it plausible to believe that the state of culture has something to do with the state of mind. Faris explains the absence of schizophrenia among the Bantus largely on the ground that there is no sharp competition for status among them. Every person has his place in the society and feels secure. It has been suggested by another writer that cultural isolation always underlies schizophrenia.[3] Thus, prisoners in solitary confinement often show schizoid traits; frequently, long-term prisoners, far from showing pleasure at the expiration of their sentences, ask to be returned to their cells. Having been cut off from normal group contacts, they develop seclusive personality traits much like those of schizophrenics. A culture like the Bantu, which provides its members with intimate contacts and social security, would be relatively free from the isolating situations productive of schizophrenia.

[1] ELLSWORTH FARIS, THE NATURE OF HUMAN NATURE, p. 288.

[2] RUTH BENEDICT, PATTERNS OF CULTURE, p. 118.

[3] ROBERT E. L. FARIS, "CULTURAL ISOLATION AND THE SCHIZOPHRENIC PERSONALITY," AMERICAN JOURNAL OF SOCIOLOGY, 40:155–65, September, 1934.

The last observation suggests that possibly there are type conflicts. Perhaps cultures have their own characteristic disorders reflecting distinctive cultural influences. We learn from Thomas that Bantu culture puts a great premium on oratory, so nearly all the men are fluent in their speech. As a result the most widespread form of nervousness is the anxiety found in youths who realize they cannot become finished speakers.[1]

Instructive, too, is the situation among the Eastern Cree. They are a particularly gentle, peaceful people. Among them bloodshed is severely frowned upon, and murder is entirely unknown. But they are exceedingly low in the scale of material culture and lead a precarious existence. When famine strikes them, as it often does, they become cannibalistic. Because of the strong taboos on human flesh and the essential gentleness of the culture generally, it is not surprising that mental conflicts should result from this situation. The principal disorder of the Cree is the Wihtiko psychosis, in which there is a psychopathic craving for human flesh, accompanied by the delusion that one has been transformed into a Wihtiko, a greatly feared folklore being who is himself cannibalistic. Here is an unusually clear case of the psychosis rising from the cultural milieu. This disorder is not known to occur elsewhere.

Hysteria is very widely found among primitives and appears to be no respecter of levels of culture. This disorder appears chiefly among women, which might lead one to suspect a biological cause; yet curiously enough, a cultural basis is suggested by the fact that men are the chief victims in certain societies. Among the Fuegians hysterical outbreaks occur largely among men in early middle life.[2] We may conclude that (1) some societies show more insanity than others; (2) certain mental disorders are characteristic of particular cultures and issue from peculiar aspects of the social situation; and (3) even mental disorders, like hysteria, which are widespread, show variations in pattern and incidence in different cultures.[3]

[1] W. I. THOMAS, PRIMITIVE SOCIETY, p. 55.

[2] J. M. COOPER, "MENTAL DISEASE SITUATIONS IN CERTAIN CULTURES," JOURNAL OF ABNORMAL AND SOCIAL PSYCHOLOGY, 29:10–17, April–June, 1934.

[3] Hallowell is of the opinion that the validity of such hypotheses must remain in doubt until we have (1) reliable diagnosis of individual cases in various cultures and (2) accurate data in respect to the relative incidence of different types of disorders in different cultures. (A. IRVING HALLOWELL, "CULTURE AND MENTAL DISORDER," JOURNAL OF ABNORMAL AND SOCIAL PSYCHOLOGY, 29:2, April–June, 1934.) While it is true that precise measurements of the relative frequency of mental disorders in different cultures cannot be made at present, it is still possible to make gross comparisons based on evidence supplied by ethnologists and sociologists.

CULTURAL FACTORS UNFAVORABLE TO MENTAL HEALTH

How shall the fact that some cultures have more insanity than others be accounted for? So far as the cultural situation is concerned, there seem to be at least two different kinds of conditions which are favorable to the production of aberrant personality. First, a culture may make excessive demands on individuals, as when it is expected that all Bantus be orators, all English soldiers fearless, or all starving Crees acquiescent. Second, a society may be divided against itself culturally. This is true in the United States, for example, where a number of different cultures live side by side, competing with one another. Rapid social change in a culture has much the same effect, since it creates new ideas and new standards which may be at variance with the old, which also persist. There are so many different ideas of what is right, of what is true, in our society that individuals frequently find it difficult to develop an integrated personality.[1] Even within one's own family there may be a bewildering array of sentiments and loyalties, as Mead[2] so strikingly indicates:

> . . . the girl's father may be a Presbyterian, an imperialist, a vegetarian, a teetotaler — a believer in the open shop and a high tariff, who believes that woman's place is in the home, that young girls should . . . not smoke, nor go riding with young men in the evening. But her mother's father may be a Low Episcopalian, a believer in high living, a strong advocate of States' Rights and the Monroe Doctrine, who reads Rabelais, likes to go to musical shows and horse races. Her aunt is an agnostic, an ardent advocate of woman's rights, an internationalist who rests all her hopes on Esperanto, is devoted to Bernard Shaw, and spends her spare time in campaigns of anti-vivisection. Her elder brother, whom she admires exceedingly, has just spent two years at Oxford. He is an Anglo-Catholic, an enthusiast concerning all things mediaeval, writes mystical poetry, reads Chesterton, and means to devote his life to seeking for the lost secret of mediaeval stained glass. Her mother's younger brother is an engineer, a strict materialist, who never recovered from reading Haeckel in his youth; he scorns art, believes that science will save the world, scoffs at everything that was said and thought before the nineteenth century,

[1] "So far as mental disorder is concerned, the significant question is. . . whether the [social] system. . . is unified by a nucleus of common values. When the structure embraces conflicting principles of social organization based on the incompatible values, psychic conflicts inevitably result." (KINGSLEY DAVIS, "MENTAL HYGIENE AND THE CLASS STRUCTURE," PSYCHIATRY, 1:63, February, 1938.)

[2] MARGARET MEAD, THE SOUTH SEAS, pp. 202–03. Copyright, 1928, 1930, 1935, 1939, by Margaret Mead. By permission of William Morrow and Company, Inc., and Jonathan Cape, Limited.

and ruins his health by experiments in the scientific elimination of sleep. Her mother is of a quietistic frame of mind, very much interested in Indian philosophy, a pacifist, a strict non-participator in life, who in spite of her daughter's devotion to her, will not make any move to enlist her enthusiasms. And this may be within the girl's own household. Add to it the groups represented, defended, advocated by her friends, her teachers, and the books she reads by accident, and the list of possible enthusiasms, of suggested allegiances, incompatible with one another, becomes appalling.

The situation is, indeed, even more complicated than that described. While the members of this family show a great variety of attitudes, the attitudes are doubtless not so consistent and unified as they are made to appear. For instance, the father may be imperialistic, yet in actual wartime vigorously oppose the selective draft if it includes his own son; the pacifist mother, once her own country is involved, may be convinced this is the war to end all wars and regret that she has only one son to give to her country. The heterogeneous nature of our culture is reflected not only in the great variety of attitudes that are held by different persons, but also in the contradictory and conflicting attitudes of the same individual. Cultural contradictions in society become mental conflicts in individuals and the source of mental disorders.

Culture conflicts in modern society. This point has been well developed by Horney,[1] who shows that despite variations due to differences in heredity and life experiences, neurotic persons in our society are essentially alike. They are alike because they are produced by conflicts which are general in our culture. Neurotics are torn between aggressiveness and timidity, between the making of excessive demands and the fear of failure, between striving for status and feelings of inferiority. In much the same manner our culture is divided against itself. On the one hand it teaches the transcendent value of brotherly love, of friendship, and unselfishness. The way to find happiness, we are told, is to live for others, not for self. On the other hand, our culture stresses intense individual competition. Whether it be in school, in business, or in sports, we are engaged in a contest for superiority over others. To get to the top is the goal, and this involves leaving others at the bottom. One man's success is another man's failure. A result of such competition is the growth of hostility between individuals; another is fear lest one fail.

[1] KAREN HORNEY, THE NEUROTIC PERSONALITY OF OUR TIME, chap. XV, "Culture and Neurosis."

The latter may be particularly pronounced, since the chances of failing are much greater than the chances of succeeding. The fear of failure, moreover, is intensified by our false ideology; if an individual fails, we are apt to say it was his own fault, a sign of some inadequacy on his part. The rôles of luck, exploitation, and circumstances are largely ignored. The belief that one has failed leads to lowered self-esteem and a sense of isolation from others that is painful.

A second basic cleavage in our culture is the intense stimulation of desires and the limitations imposed on satisfying the desires. For example, our culture uses numerous methods like high-pressure advertising and installment buying to whet the human appetite for more goods and satisfactions, that is, for a higher standard of living. But it is much easier to create wants than to supply the means of satisfying them. To widen the gap between what people want and what they actually have or can reasonably expect to have is to make for widespread discontent and nervousness. All of us are, of course, exposed to these contradictions in our culture, but those who, for one reason or another, experience the conflicts of our culture in accentuated form are likely to become neurotic. They may be called, says Horney, "the stepchildren of our culture."

The ecology of mental disorders in Chicago. This thesis gets factual support from a study of the distribution of mental disorders in Chicago,[1] which shows a dynamic association between the cultural areas of the city and the mental health of the populations occupying them. The investigation covered 7069 first admissions to Cook County Psychopathic Hospital, 1930–31; 28,763 Chicago cases admitted to four state institutions, 1922–34; and 6101 private hospital cases from the eight largest private hospitals in Chicago, 1922–34. The addresses of these patients were plotted on a map. Ratios of mental disorders for the various neighborhoods were then obtained by computing the number of cases in the area per 100,000 population 15 years old and over. The ratios ranged from 48 to 499; that is, the neighborhood with the greatest proportion of commitments for mental disorders had more than ten times the ratio of the district with the lowest proportion. There was a regular decrease in the relative number of cases as one moved from the center of the city out toward the periphery. Concentration of high rates were found in the rooming-house districts, in Hobohemia (the area of

[1] ROBERT E. L. FARIS and H. WARREN DUNHAM, MENTAL DISORDERS IN URBAN AREAS (Chicago: University of Chicago Press, 1939).

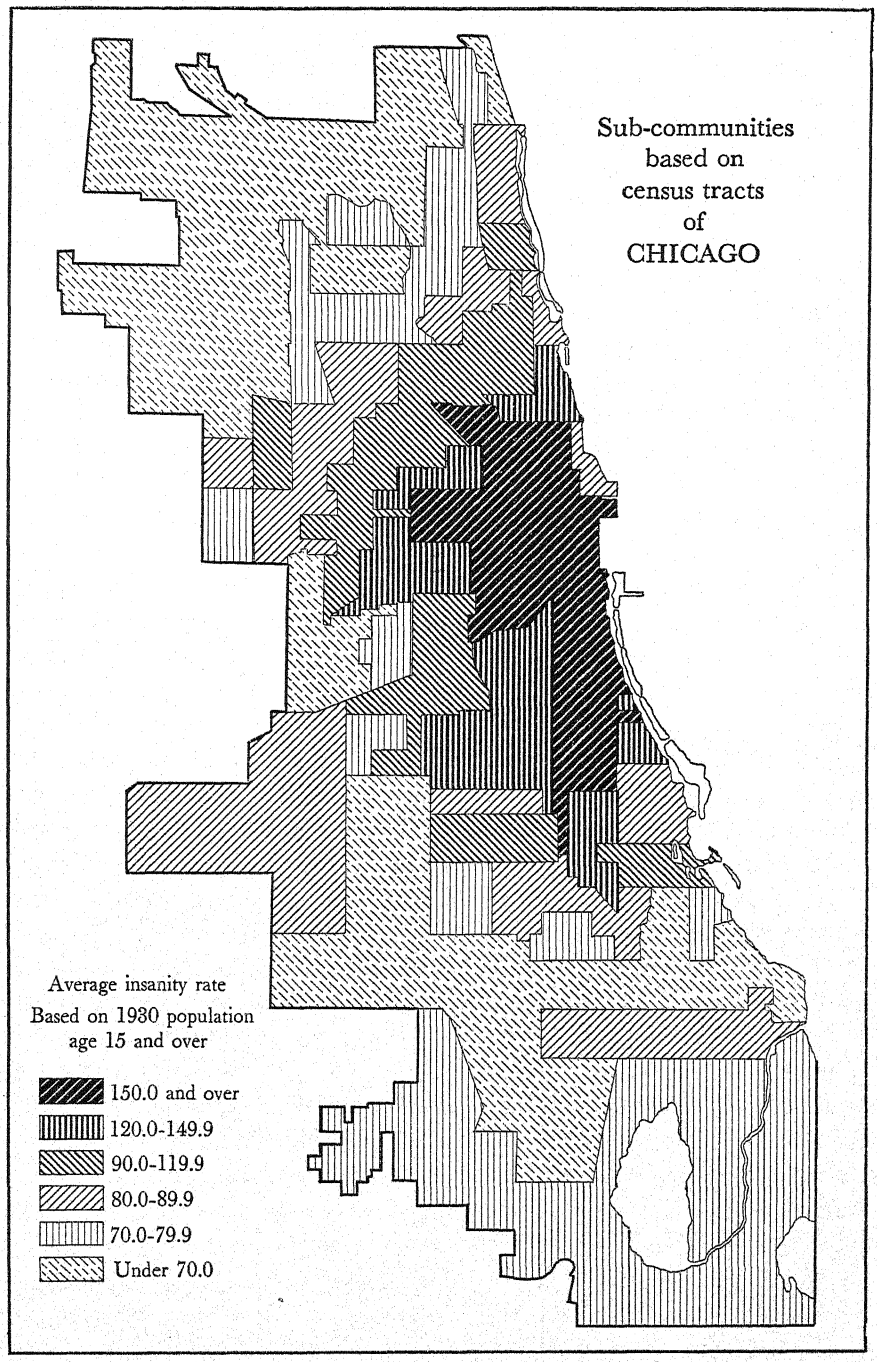


FIGURE 34. THE DISTRIBUTION OF MENTAL DISORDERS IN CHICAGO

FARIS *and* DUNHAM, MENTAL DISORDERS IN URBAN AREAS, *Map V* (*Univ. of Chicago Press*).

homeless men), in certain Negro areas, and in the slum districts of the foreign-born. The lowest rates occurred in the outlying residential districts, the lake front, and hotel and apartment-hotel neighborhoods. The high Negro rate does not indicate a racial factor, for considerable variation in the rate appeared within the area, the highest being in the most deteriorated areas. The areas characterized by high rates of mental disorganization are also the ones which have been shown by other studies to be marked by high rates of social disorganization, that is, by high rates of poverty, unemployment, infant mortality, disease, and the like.[1] The thesis that conflict in personal life tends to increase the probabilities of becoming neurotic gets support also from the figures on the relation of marital status and insanity. Figure 35 shows the rates for first admissions to hospitals for the insane to be considerably greater for the divorced population than for the married population.

If these observations on the relation of culture to insanity are correct, then it follows that the amount of mental health in a society will be correlated with the degree to which its culture is simple, unified, positive, and consistent with original nature. This thesis is receiving increasing support from accumulating evidence. It seems to be borne out by the testimony already supplied. It is also buttressed by a particularly revealing study of the mental life of inhabitants in five different American communities.[2] The conditions described in the following paragraphs are as of 1929, when the study was completed.

Mental health in five communities of varying cultural complexity. These settlements are in hollows in the Blue Ridge Mountains of Virginia, about 150 miles from the nation's capital. A hard-surfaced road leads up to the base of the mountain and runs past Briarsville, the first of the hollows. Extending progressively back into the mountains are the other communities: Rigby, Oakton, Needles, and Colvin. Although Colvin Hollow was only eight miles removed from the highway, it was effectively isolated from the outside world. The investigators had to go up hazardous trails on horseback, and then walk the rest of the way. When they finally reached their destination, they came upon a community that had seldom been visited by outsiders in the period of more

[1] This study also shows that certain types of mental disorder are not uniformly distributed, but rather are concentrated in particular areas. It is difficult to appraise this finding, however, in view of the fact that present diagnosis and classification of mental disorders is somewhat arbitrary.

[2] MANDEL SHERMAN and THOMAS R. HENRY, HOLLOW FOLK (New York: Thos. Crowell, 1933).

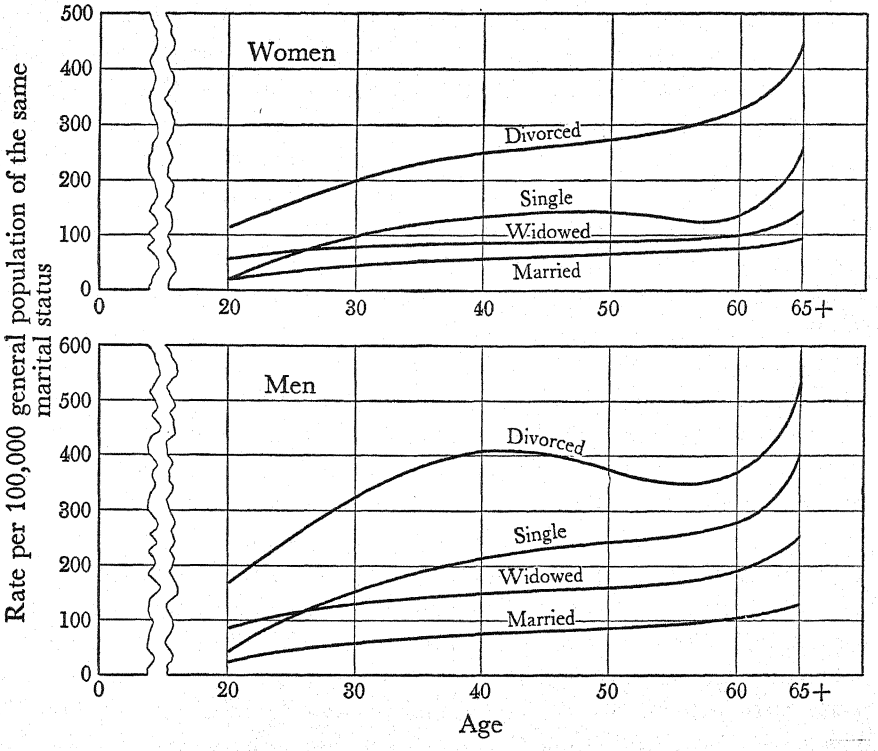


FIGURE 35. NUMBER OF FIRST ADMISSIONS TO STATE MENTAL HOSPITALS IN THE UNITED STATES DURING 1933, BY MARITAL STATUS, EXPRESSED AS RATE PER 100,000 OF THE GENERAL POPULATION OF THOSE OF CORRESPONDING MARITAL STATUS AS OF 1930

The married have a more favorable rate than others. Selection of more favorable types for marriage might explain the difference between the married and the single, but would hardly account for the higher rate among the widowed. From LANDIS *and* PAGE, MODERN SOCIETY AND MENTAL DISEASE (*Farrar and Rinehart*), *p. 70, Fig. 9.*

than 100 years since the first Anglo-Saxons had come up to settle there. Although Herbert Hoover had a camp only ten miles away, the residents of Colvin Hollow had never heard of him. There were no social agencies of any kind in the community. No one could read or write. The English spoken was quaintly Elizabethan. There were scattered families of from five to eleven members living in mud-plastered one-room huts. For food they depended largely on the little maize and cabbage they grew in small patches. The Colvinites grew enough food to supply their needs, hence there was no starvation. They were undernourished but not malnourished, thanks to the vitamin content of cabbage. The

nearest general store and telephone were at Oakton, five miles away, but these were utilized only very rarely. Without multiplying details, it may be said that the rest of Colvin Hollow was in keeping with this picture of a very rudimentary existence.

As one moves down from Colvin Hollow, the communities become increasingly modern. Needles, for example, has some farms. A few of the citizens are literate. There is a combined school and church in the community. Oakton, next down the line, has a general store with a telephone. Rigby has still more social development; and Briarsville, at the foot of the mountain, is a small farm and sawmill town. It boasts the usual social institutions of our culture; a fine school, church, stores. There are automobiles, radios, and a daily newspaper.

Here are five communities in a series of increasing cultural complexity. How do the inhabitants compare in stability of personality? The investigators discovered that evidences of neuroses increased as they moved from Colvin Hollow to the outside world. Why so? Sherman explains it in terms of the cultural situations. The Colvinites were practically without worries. The men did not have to be concerned about losing their jobs. The children had no ambitions which could be thwarted. When one youngster was asked what he wanted to be, he replied, "I want to be what I am." The girls replied they were "goin' to be 'wimmin.' " There was little discipline of the children, for there was nothing for the child to break or spoil. Birth and death were accepted as natural and caused little emotional distress. The investigators asked the children in the five Hollows what they would like to have. The only two wants expressed in Colvin Hollow were for chewing-tobacco and money, but the children had little idea of the value of the latter. The list of things desired (and not possessed) grew as the questioners moved out toward the periphery. And, as already indicated, so did the amount of mental anguish. These communities would seem almost to have been made to order for the purpose of showing the close connection between the state of culture and the amount of mental disorder in a society.

INCIDENCE OF INSANITY

Is insanity on the increase? This question is difficult to answer. It is not possible to compare modern with primitive cultures because of the great variation in social adjustment found in particular societies on the two cultural levels. As was shown, intense competition among individuals in a community is favorable to the production of mental

disorders.[1] Our own society is cited as one in which competition is particularly pronounced, yet in this respect some primitive societies may equal and even surpass us, while in a modern civilization like that of India competition is more moderate. Likewise, some primitive cultures make even greater claims upon human nature than do modern societies. It is reported that 85 per cent of the Crees, to whom reference was made above, are hysterical.[2] The only thing which can be said, therefore, is that many primitive societies are better as regards mental health than ours, but others are probably as poor and still others, perhaps, even worse. Certainly no unilinear evolution in the direction of greater mental health or mental illness can be shown.

Even if the query is limited to western civilization, it is not possible to answer it satisfactorily. At present the sentiment seems to prevail that insanity is increasing in our society. A plausible case for this position can be built up both on theoretical and on factual grounds. As was suggested before, the more complex and confused a culture, the more likely mental disorders are to develop. Since our culture is considerably more complex than it was a hundred years ago, and social changes come now with such rapidity that it is difficult to keep pace with them, it is easy to believe that the new situation is taking an increased toll in the form of maladjustment. Because cultural development is most pronounced in cities, it would be expected that maladjustment there would be particularly rife. Evidence can be produced to support this view. The number of commitments from urban areas exceeds that from rural regions. The data scarcely support the notion that the rural housewife, toiling arduously in isolation, is an easy prey for melancholia. The less completely occupied city housewife seems to be a more ready subject for mental disorders, as indicated by Figure 36.

However, the view that mental disorders are increasing steadily has its challengers.[3] It is true that there are more patients in hospitals than ever before; that each year sees a larger number of persons committed; that many states have not institutions enough to take care of all those who should be in them. It is true that the proportion of persons receiving institutional care is certainly mounting in many countries; but the proportion may denote not a real increase in the incidence of mental

[1] While the emphasis here is on the negative phase, the positive phase should not be overlooked. Intense competition also leads to work of great social utility.

[2] J. M. COOPER, *op. cit.*

[3] E. WINSTON, "THE ASSUMED INCREASE OF MENTAL DISEASE," AMERICAN JOURNAL OF SOCIOLOGY, 40:427–40, January, 1935.

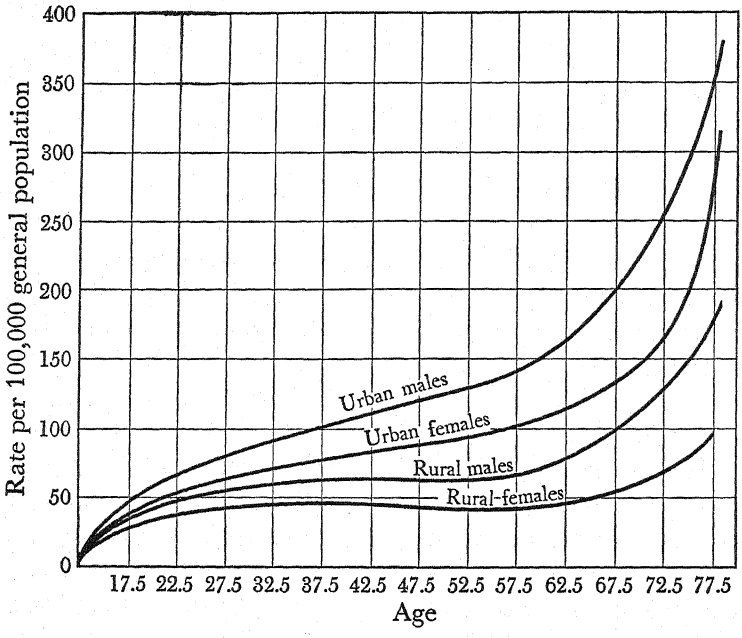


FIGURE 36. INSANITY RATES FOR URBAN AND RURAL MALES AND FEMALES

The chances of becoming insane increase rapidly in the later years of life. The chart shows only admissions to hospitals, however, and hence does not show the true incidence of insanity since many insane are not hospitalized. From LANDIS *and* PAGE, MODERN SOCIETY AND MENTAL DISEASE *(Farrar and Rinehart), p. 45.*

disease but just betterment of hospitalization. That the adequacy of hospitalization is an important factor is suggested by the situation in China, where both public and private facilities for treating the insane are relatively poor. There, we are told, the insane are to be found in the colleges along with the sane. When a group of Chinese students was tested with a modification of the Thurstone Neurotic Inventory, it was found that for 855 normal subjects the average score was 78.45, which is higher even than the average score (64.85) for American abnormal subjects.[1] This suggests that one has to be mentally a great deal worse in China than in the United States to receive group attention. The question as to whether there is a progressive increase in mental disorders as civilization becomes more complex is thus seen to be an open one.

[1] S. K. CHOU and C. Y. MI, "RELATIVE NEUROTIC TENDENCY OF CHINESE AND AMERICAN STUDENTS," JOURNAL OF SOCIAL PSYCHOLOGY, 8:155–84, May, 1937.

Personality Reorganization

Whether insanity is increasing or decreasing, the situation is still a serious one; and the question naturally arises as to what can be done to ameliorate it. The problem of curing mental disorders is one for the psychiatrist and other workers in the field of psychology. The sociologist is interested in the question, however, because of its many social implications. No attempt will be made to give the details of therapy which are within the province of the sciences of the mental life; rather, some of the social approaches and emphases which are seemingly pertinent, and which are sometimes overlooked by the specialists in psychology, will be briefly indicated.

THE INDIVIDUAL APPROACH

One way to attack the problem of mental disorders is to center attention on the individuals who develop them. What can be done to help such individuals? One answer is to change the individual; another is to change his situation. If A is a square peg in a round hole, then either the rough edges can be taken off the peg, or a square hole can be found to fit it. Psychoanalysts and psychiatrists usually concern themselves with trying to reshape the peg; they work on the individual to change his attitudes and motives and insights by getting him to see why he is in trouble and what he must do to get out of it. By such methods as the interview, free association, and the analysis of dreams the psychologist tries to penetrate into the recesses of the person's past, until the origins and history of the problem are fully understood.

Psychologists generally frown on any attempt to solve the problem simply by changing the individual's environment. They say that unless the person's conflicts are solved, he will carry them into the new situation, and the problem will reappear after a time in all its former intensity. It is more helpful, therefore, to explore the patient's inner life until he gets some insight into his difficulty; this is desirable regardless of what is done to change the individual's outer environment also. In certain cases, however, satisfactory results are achieved simply by effecting a change in the individual's experience. The Youngs [1] report the case of a blind man who was steadily retreating from real life because of his handicap. His personality had become most unattractive. He had

[1] Pauline V. and Erle F. Young, "Mutations of personality," Journal of Applied Sociology, 9:442–49, December, 1925.

little to do with others. He bordered on schizophrenia when the social worker came upon him. He was taken to a club where other individuals with the same physical handicap congregated regularly. There he discovered for the first time how happy such people could be. He found them doing all sorts of useful things. He noticed how they delighted in the fellowship. The social worker saw to it that her client was received cordially by the president, and by the other members. He was given certain responsibilities in connection with the club. This marked the beginning of a new life for this man. As he found a group where he was wanted and where he was useful, his personality changed. A social point of view replaced the introverted private point of view he had had before; and the danger of the psychosis disappeared.

In the treatment just described, the purpose was to adjust the individual to his everyday experience by changing his point of view toward the experience. This was accomplished by working on the individual's attitudes, either directly as by psychoanalysis or indirectly through a change in his situation, or both. There is still another way of solving an individual's conflict which does not involve an inner change at all. The solution consists in putting the individual into a situation which is socially acceptable and which obviates the conflict. The new situation is special in that it is unusual; but it is not abnormal because it is socially approved. Dollard[1] reports the case of a man who dreaded competition and who was maladjusted in our highly competitive society, but who found happiness when he entered a monastery.

The sociologist is particularly interested in the social or situational factors involved in the treatment of mental disorders. For this reason the preceding paragraphs have emphasized the part which the situation plays in social adjustment. Fortunately there is evidence all along the line that the significance of the situational factor is being increasingly appreciated. In progressive school systems, dull students are being educated in groups of their own kind. The most effective way to treat delinquent children which has so far been found is to change their situations, that is, to place them in foster homes.[2] Even in the treatment of mental patients in institutions there are signs that the situational ap-

[1] JOHN DOLLARD, CRITERIA FOR THE LIFE HISTORY (New Haven: Yale University Press, 1935), pp. 282–84.

[2] WILLIAM HEALY *et al.*, RECONSTRUCTING BEHAVIOR IN YOUTH (New York: A. A. Knopf, 1929).

proach is being utilized. Marsh,[1] for example, reports working with schizophrenics, by encouraging them to organize into clubs which sponsor activities and programs.

THE COLLECTIVE APPROACH

The psychologist is interested in treating individuals who have mental disorders. What the psychologist frequently fails to recognize is that back of these individuals are great cultural forces which produce the disorders. It is quite necessary, of course, to deal with individuals and cure them, but there is a danger in overlooking the larger causative factors. When there are so many persons with mental disorders in our society, the question arises as to what can be done to reduce the number. To deal with individual patients may not be the most effective answer. It might be better to attack the social situations responsible for mental disorders, such as lack of wholesome recreational opportunities, and racial and religious prejudices. Boys' clubs, inter-racial commissions and enlightened programs of sex education are ways of attacking the cultural situation as a whole. Sociologists are asking if society itself may not be rightly regarded as sick, when the number of maladjusted persons is so high.[2]

In this connection, the recent experience of Russia may be instructive. Frankwood Williams,[3] late director of the National Committee for Mental Hygiene in the United States, reported in 1934 after several visits to Russia, that "the rate of incidence of nervous and mental disease in Russia is falling." He gave as the chief reason the development of a new social philosophy among the masses, particularly in the cities, which led them to feel that they had an important part to play in society; that each individual was of value to the group; that each had a vital contribution to make to the group; and in turn would be cared for by the group. Instead of working for private employers, they were now working for the state, which they felt they themselves constituted, so that in reality they were working for themselves. The state undertook to pro-

[1] L. C. MARSH, "GROUP TREATMENT OF THE PSYCHOSES BY THE PSYCHOLOGICAL EQUIVALENT OF THE REVIVAL," MENTAL HYGIENE, 15:328, April, 1931. It may, indeed, be observed that the recovery of patients in psychopathic hospitals is due in part to the change in their situation, that is, their transfer from the community to the hospital, where the environment is more favorable.

[2] L. K. FRANK, "SOCIETY AS THE PATIENT," AMERICAN JOURNAL OF SOCIOLOGY, 42:335–45, November, 1936.

[3] FRANKWOOD WILLIAMS, RUSSIA, YOUTH, AND THE PRESENT DAY WORLD (New York: Farrar and Rinehart, 1934), p. 139.

vide jobs for all able-bodied persons, both men and women, to furnish insurance against illness, free medical care, and the like. Community day-nurseries were provided for the children of working mothers. Expectant mothers were given leaves with pay for a month both before and after the birth of the child. When the mother returned to work she could leave her baby in the factory nursery. Every three hours during the day she would be allowed half an hour to go to the nursery, don a sterilized gown, and nurse her baby. The emphasis, apparently, was placed on human values rather than on economic efficiency.

Dr. Williams talked, while in Moscow, with the head of the Scientific Institute for Neuro-Psychiatric Prophylaxis, who reported with amazement that he had been searching the hospitals of the city for three months for a new case of manic-depressive psychosis to demonstrate to his students and had not been able to find one. Dr. Williams further observes: "Probably enough cases of this type have been admitted to any one of the mental hospitals in New York City this very day to furnish demonstration material to all the medical schools of the city and possibly several other cities besides."

Sociologists recognize, of course, the great difficulty of securing an accurate and objective description of conditions in Soviet Russia. Dr. Williams' report may not be entirely free of unconscious bias and distortion, despite his position as a highly respected and competent leader of the mental hygiene movement. Moreover, the situation described is temporary, since changes are occurring with great rapidity in Russia, and not all of them along lines that were first laid down. For all this, Dr. Williams' report is, perhaps, suggestive of the direction in which a society may move in order to lessen the incidence of mental disorders. Certainly much could be done to reduce the amount of individual maladjustment in our own society by setting our cultural house in order. In a later chapter [1] detailed attention will be given to the fundamental problems involved in adjusting culture to man, as well as man to culture.

[1] Chapter XXVIII.

SUMMARY

Although every individual who shares group life with others develops a personality, the result is not always socially desirable. In some cases this is because individuals acquire anti-social attitudes of one sort or another. Criminals are in this class. As a group they may be described as people who are devoting good minds to poor purposes. On the contrary, the insane, with whom this chapter is concerned, are those whose minds do not function normally. Insanity is no respecter of intelligence, occupation, race, or social class. It occurs on every social level and in every social group with a frequency which is disconcerting.

Why do personalities go awry in this way? While in some cases physiological bases are evident, in many, unfortunate experience of some sort accounts for the difficulty. As a rule the trouble may be traced back to early childhood. A crisis of some sort may cause a breakdown in adolescence or adulthood, but such a breakdown is generally only the precipitation of a condition that has been building up through the years and which has its roots in childhood, usually in early family experiences. If a child has been too much sheltered, if he has not been taught to make decisions resolutely, if he has been unsuitably intimidated, if he has been deprived of essential information, he may later be unable to cope with real life. Likewise, if the child feels insecure in his family relations and is rebuffed when he seeks to gain such security elsewhere, he may develop habits which are hostile to mental balance. These situations are representative of the sort of experience that is not conducive to mental health.

These situations vary not only from family to family within a given culture, but also between cultures as well. Insanity is absent or rare in some societies and common in others. These differences are due to the character of the culture. As was indicated, some cultures are non-competitive. Everyone has his place in the group and feels secure. A caste system such as is found in India, for instance, reduces competitive striving and gives individuals a fixed, secure place in society. Other societies which are competitive nevertheless minimize the significance of failure. The Comanche are very assertive and compete for honors through exploits. Severe initiation tests are set up for the youth who are entering manhood. Yet those who fail these tests, the *Berdaches*, are not

sent away in shame. They do work not done by the other men, but they are not despised for it. Indeed, their achievements are often lauded. The Catholics in our society have a comparable attitude; although regarding celibacy as the most desirable state, they do not condemn marriage. Further, some societies make no important demands upon the individual which he cannot meet, while other societies, like the Eastern Cree, have standards that lead to mental stress. There are still other cultural situations which make either for weal or woe. It was concluded that the cultural situation may be regarded as unfavorable to mental health if it is too taxing on human nature or if it is divided against itself.

It follows that conflicts in any society cannot be understood apart from the cultural situation, as was demonstrated by an account of five neighboring American communities representing different degrees of cultural complexity. It was shown that as one moved from the most simple to the most complex, there was a progressive increase in the amount of nervousness and mental instability.

Although mental ill health might seem to be part of the price which mankind must pay for cultural growth, society is not prepared to admit this, and efforts are being made to cope with the problem. The psychologist and psychiatrist are concerned with the treatment of individual disorders, but the sociologist is interested chiefly in the cultural conditions which underlie these disorders and of which the disorders are only an expression. The sociologist thinks there are important implications, for instance, in the fact that adolescents suffer more stress and strain in our culture than in Samoa. When mental illness assumes such tremendous proportions as it does in our society, it does not seem presumptuous to suggest that society itself needs attention.

QUESTIONS FOR DISCUSSION

1. How is amentia to be distinguished from dementia? In the causation of which does heredity play the greater rôle?
2. What distinction is made between functional and organic mental disorders? Why may the distinction not be valid in certain cases?
3. How would you account for the relative absence of mental disorders among children under ten years of age?

4. Why is the study of personality disorganization important to sociology as well as to psychology?
5. What aspects of college life, if any, are not conducive to good mental health? What aspects are favorable?
6. What is the relation of religion to guilt feelings? How may religion be a force for mental health?
7. Why are studies of mental disorders among identical twins of special interest to sociologists? What do such studies show?
8. Are mental disorders on the increase? What difficulties lie in the way of answering this question?
9. Why is the rate of mental disorders lower in rural than in urban communities?
10. What significance do you attach to the study of hollow folk reported on in this chapter?
11. What is the relation of rapid social change, such as characterizes modern life, to mental health? Why?
12. What kinds of social situations are unfavorable to mental health?
13. What approach to the problem of lessening the incidence of insanity do you favor? Why?

TOPICS FOR REPORTS

1. Prolonged unemployment and mental conflict.
2. The mental effects of solitary confinement in prisons.
3. The psychological consequences of intense competition in the public schools.
4. The group approach in the treatment of mental disorders.
5. The experience of adolescent girls in Samoa. (See MARGARET MEAD, COMING OF AGE IN SAMOA.)
6. Repression and mental disorders.
7. Economic differentials in the rate of insanity.
8. Mental disorders in wartime.

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ALEXANDER, FRANZ, THE PSYCHOANALYSIS OF THE TOTAL PERSONALITY (translated by B. GLUECH and B. LEWIN). New York and Washington: Nervous and Mental Diseases Publishing Company, 1930

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A valuable issue, devoted almost exclusively to a series of articles on the interrelationships of sociology and psychiatry.

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CAMPBELL, CHARLES MACFIE, HUMAN PERSONALITY AND THE ENVIRONMENT. New York: The Macmillan Company, 1934.

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These two books by the master himself represent the basic ideas of psychoanalysis and the later revisions and additions, but with a scarcity of illustration.

HART, BERNARD, PSYCHOLOGY OF INSANITY. Cambridge: The University Press, 1920.

A marvelously clear exposition of the basic psychological processes in mental disorders.

HEALY, WILLIAM, and AUGUSTA F. BRONNER, MENTAL CONFLICTS AND MISCONDUCT. Boston: Little, Brown and Company, 1917.

An early book on the problems of youth.

HORNEY, KAREN, THE NEUROTIC PERSONALITY OF OUR TIME. New York: W. W. Norton and Company, 1937.

Distinguished by the appreciation of cultural influences, having little reference to sex, and tying up the "inferiority complex" to social theory through the concept of competition.

LANDIS, C., and J. D. PAGE, MODERN SOCIETY AND MENTAL DISEASE. New York: Farrar and Rinehart, 1938.

A valuable, compact summary of available statistical data on various aspects of the problem of mental disorders, such as its general prevalence, relation to age, urban patterns, education, marriage, and economic status. Valuable in showing the social background factors in mental disorders.

WHITE, WILLIAM A., TWENTIETH CENTURY PSYCHIATRY. New York: W. W. Norton and Company, 1936.

Modern, and stays fairly clear of particular "isms."

PART IV

COLLECTIVE BEHAVIOR

THE PRECEDING section has shown that other people play a vital part in our lives. Our personality is affected by their disposition and character, and their culture becomes our culture. We should all be different if we lived in a different group or in no group at all.

Because the group is so important, its rôle in human experience is to be explored still further in this section. First, there are some general matters to be considered, such as the nature and import of the groups that human beings form and the nature of social control. These topics are taken up in Chapter IX, "Group Life." Of particular interest, too, is the effect of the group on the behavior of man, both emotional and intellectual. Suggestion is a powerful force in human experience. How the group, through the phenomenon of suggestion, affects the behavior of individuals is analyzed in Chapter X, "Suggestibility: Crowds and Publics." Another matter of great significance for the individual is his position in the group. The analysis of social status, as it concerns both the relative position of individuals in a society and the comparative position of whole groups, is undertaken in Chapter XI: "Status: Social Classes."

Underlying all human group life, of whatever form, are the so-called group processes, or fundamental ways in which people respond to one another and modify one another's behavior. Human beings may work together amicably, that is, co-operate, but something may arise to disturb the relationship, and there may be a falling-out, or conflict. If unduly prolonged, fighting interferes with production and the main-

tenance of social order, so human beings who are at odds resort to ways of adjusting their differences. This they do with varying degrees of success. Settlements may range all the way from a temporary truce to the complete elimination of the points of difference; that is, the contestants may accommodate themselves to such disagreement as continues to exist or they may eliminate their differences altogether through the merging (assimilation) of viewpoints. How such group processes work out will be shown in detail in the two concluding chapters of this section: "Co-operation, Competition, and Conflict," and "Accommodation and Assimilation."

IX. GROUP LIFE

WITH HIS predilection for life in groups, man is, as Aristotle said, "a political animal." How large a colony man forms naturally it is impossible to say, since wherever we find him, man lives not in a state of nature but in a state of culture. If we look to the primates for a suggestion, we find among them a loosely organized band consisting of only a few families. In simple food-gathering groups of human beings, bands number from perhaps 10 or 15, to 100 or 150 persons, depending on the favorableness of the food supply. The growth of culture has, however, increased enormously the scope of man's associative life. Today he may mingle with 100,000 or more persons at a football game or a political rally. And it is a far cry from the small primitive band to the modern metropolis with its teeming millions.

HUMAN GREGARIOUSNESS

SOCIABILITY A LEARNED RESPONSE

How shall we account for man's gregariousness? It is more easily explained on the basis of need and habit than on the grounds of an instinct to associate. There is no report of any internal drive in man that impels him to seek the company of his fellows. The newborn babe shows no preference for his own mother. A wet nurse may satisfy him just as well. Indeed, the craving of the babe is not for human beings but for the satisfaction of his organic wants. If a robot could be devised to supply these wants, the child would no doubt become attached to the robot. Spalding [1] found that if he displaced the hen in satisfying the needs of chicks, he also displaced the hen in other ways, for chicks would follow him about the farmyard, completely ignoring their parent. The human babe is, of course, absolutely dependent on outside assistance for survival; it is this dependence that constitutes the primary *raison d'être* of group life. In the normal course of events, the needs of the babe are supplied by human beings, so the child develops a sense of dependence on those of his own kind.

[1] See G. MURPHY and L. B. MURPHY, EXPERIMENTAL SOCIAL PSYCHOLOGY (New York: Harper and Brothers, 1931), p. 91, for fuller discussion of Spalding's pioneer work.

The development of gregariousness in the child is clearly the result of learning. Since the child's needs are met by adults, he tends to favor them. His first preferential responses are toward them. Generally, at two months of age the babe will smile for the first time, but he will smile for human adults only. At this stage of his development there does not seem to be any satisfaction in association for its own sake. The babe does not smile for children, nor does he seem to care about being with other children. When in each other's presence, four-month-old children commonly disregard each other. At six months of age there may be a brief period of touching, but even at a somewhat older age, children do not appear to enjoy each other's company. In order to sustain a group relationship between little children, some common object, such as a toy, is generally needed. The attention is then on the activity and not on the company.

As he grows older, the child begins to appreciate the fact that more and more pleasures are possible only in groups. A boy cannot play baseball by himself. Certain types of fun are available only if there is group demand for them. The circus will not come to town unless large numbers of children will turn out for it. So many satisfactions are thus enjoyed in and through groups that before long human association becomes a source of enjoyment in itself. We like to be with others, and we feel lonely and uneasy when deprived of human contacts for any length of time. Acceptance by the group becomes a source of the greatest pleasure and rejection by the group the basis for the most severe mental anguish.

INDIVIDUAL DIFFERENCES IN GROUP AFFILIATION

Individuals differ greatly in their degree of sociality. Some belong to more groups than others. Some participate more than others in the groups to which they belong. Terman [1] found, for example, that gifted children belong on the average to more groups than do ordinary children. On the other hand, the bright children tend also to be by themselves somewhat more. Chapin, studying the group affiliation of college students, found that both the better students and the leaders of college life belong to more groups than do the other students. There is a wide range in the amount of social participation of college students, as is indicated in the table on page 247. Whereas among students generally

[1] L. M. TERMAN *et al.*, GENETIC STUDIES OF GENIUS (Palo Alto: Stanford University Press, 1925), vol. 1.

TABLE 7. PARTICIPATION OF COLLEGE STUDENTS, BY PERCENTAGE *

Number of Activities	4637 Students	1170 Officers (Titular Leaders)	379 Prominent Students	110 Honor Students
0	33.5	--	--	7.1
1	27.6	3.2	17.4	10.7
2	19.5	6.5	20.3	11.5
3	9.6	8.9	20.5	15.1
4	5.1	12.3	14.7	10.7
5	2.1	13.5	10.3	15.1
6	1.3	14.2	7.3	11.5
7	1.3	12.8	2.9	7.1
8	--	10.2	1.8	6.2
9	--	7.2	0.8	1.8
10	--	4.1	0.8	0.9
11	--	2.6	--	--
12	--	1.7	--	--
13	--	1.4	--	--
14	--	0.4	--	--
15	--	0.1	--	--
16	--	0.09	--	--
17	--	0.09	--	--

* F. STUART CHAPIN, "RESEARCH STUDIES OF EXTRA-CURRICULAR ACTIVITIES AND THEIR SIGNIFICANCE IN REFLECTING SOCIAL CHANGES," JOURNAL OF EDUCATIONAL SOCIOLOGY, 4:491–98, April, 1931.

one in every three does not participate in any extra-curricular activities, only one honor student in fourteen is without such connection.

It is not easy to account for such individual differences in group affiliation. Some psychologists believe that the explanation is partly to be found in differences in inherited capacity for social relations. According to this view, some children have more natural talent than others for social life. Just as some children have the knack for working with things, and others with ideas, some children are thought to have a special aptitude for getting along with people. It is difficult to secure experimental confirmation for this point of view. It is known that children of two or three years of age differ greatly in degree of sociality. In the nursery school, one tot may be seen off in a corner playing by himself, while another child moves from place to place taking an interest in the activities of all the other children. Although inherited factors may play a part, a child's experience may also be important in determining in which of these two ways he will behave. For example, if the child develops a strong interest in reading, which is a solitary occupation, he is much less likely to be sociable than if he spends his time in play with other children. If a child is read to a great deal by his mother he may become more sociable than if he is encouraged to read by himself; he is likely to be

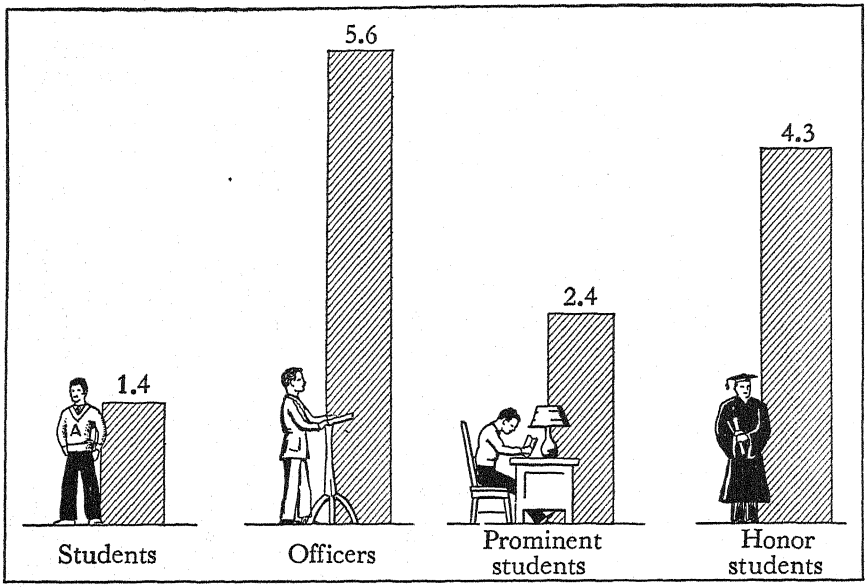


FIGURE 37. COLLEGE ACTIVITIES OF LEADERS AND NON-LEADERS

The length of the bar indicates the average number of college activities in which different types of students participate. Perhaps contrary to popular opinion, the honor students are more active in college social life than the average students. Based on data in Table 7.

even more sociable if he is encouraged to take the initiative himself in reading to his parents. In any case, as was brought out in Chapter VI, the nature of a child's early dealings with other persons may influence him strongly either for or against group participation.

Introversion, extroversion, and group participation. Group participation is closely related to the personality traits of extroversion and introversion. The extrovert is, among other things, a good mixer, an active participant in objective affairs. The introvert is an isolationist; sensitive to criticism and fearful of failure, he tends to withdraw from others. In a standardized and validated test of extroversion-introversion,[1] among the items of most diagnostic value appear the following: "limits his acquaintances to a select few"; "keeps in background on social occasions"; "is critical of others"; "prefers to work alone rather than with people"; "prefers to work at tasks that do not bring him into contact with

[1] E. HEIDBREDER, "MEASURING INTROVERSION AND EXTROVERSION," JOURNAL OF ABNORMAL AND SOCIAL PSYCHOLOGY, 21:120–34, July, 1926.

people." A positive answer indicates introvertive tendencies, a negative answer extrovertive tendencies. Extroverts and introverts are not, however, distinct personality types. Human beings cannot generally be classed as one type or the other. Rather, extroversion and introversion are personality traits, which vary in degree much as do height and weight. A few individuals in a large group will be extreme extroverts, a few extreme introverts, but the majority will be ambiverts. The social tendency of extroverts and the seclusive behavior of introverts are explicable in the light of their developmental history, as has already been suggested.

PERFORMANCE IN THE GROUP

Another pertinent question has to do with the effect of the group on individual performance. Under which condition does an individual do better: when working alone or when part of a group? Numerous experiments have been carried out in the effort to answer this question. In one, the subjects were tested on their ability to keep a pointer on a brass target on a revolving disk. This test of motor ability was given privately and also in the presence of observers. Four out of five persons gave a better performance when being watched by others.[1] The presence of others seems to increase the individual's energy and to step up the level of his performance. The desire to make a good showing before others is no doubt also a factor. When intellectual skills are tested under the two conditions it is found that the subjects show more speed in the group situation. For example, they do more multiplication problems when being watched than when working alone.[2] Interestingly enough, however, most of the subjects in this experiment do their most accurate work in private.

The situation is different when the subject is not watched by a critical audience but is in a group with others who are also at work. Such a group is called a co-acting group. The great majority of individuals can do simple mental tasks like canceling vowels and multiplying two-place numbers better in a co-acting group than they can when working alone.[3]

[1] L. E. TRAVIS, "THE EFFECT OF A SMALL AUDIENCE UPON EYE-HAND CO-ORDINATION," JOURNAL OF ABNORMAL AND SOCIAL PSYCHOLOGY, 20:142–46, July, 1925.

[2] J. F. DASHIELL, "AN EXPERIMENTAL ANALYSIS OF SOME GROUP EFFECTS," JOURNAL OF ABNORMAL AND SOCIAL PSYCHOLOGY, 25:190–99, July–September, 1930.

[3] F. H. ALLPORT, SOCIAL PSYCHOLOGY (Boston: Houghton Mifflin Company, 1924), chaps. 11 and 12.

The sight of others at work no doubt acts as a stimulus to extra effort. The custom of having students take their examinations in a group would thus seem to be helpful to most students.

It would, however, be a serious mistake to generalize these conclusions too much. Shy, introverted individuals do not do their best work before observers. Stutterers probably do better working alone. It might be difficult to write great literature in a group; at any rate, the record seems to show that little of the world's immortal verse or prose was composed in public. And, as has been indicated, it is one thing to perform before a group and another to perform in it. In brief, although on the whole the experiments show a group effect in the direction of greater yield and efficiency, much depends upon the kind of individual, the type of activity, and the group situation involved.

Kinds of Group Life

The foregoing suggests that there are various kinds of group formation, and that some are more significant for human beings than others. The least important type of grouping is the aggregation, or collection of objects in close proximity but without any interplay between them. A group of trees is an aggregation, as is also a group of newborn babes in their separate cribs in a hospital maternity ward. A foregathering of individuals cannot be regarded as a social group unless there is interstimulation and response among them. Whenever two or more individuals come together and influence one another, they may be said to constitute a social group.

It is, indeed, very difficult to conceive of human beings being together and not constituting a group, that is, not affecting each other. The newborn babes referred to above present an unusual case. They do not disturb each other, for all their noise-making, because for some time after birth, babies can neither see nor hear. But it is hard to think of human beings in possession of their senses who would not be influenced by the presence of others. An individual walking in Times Square, New York, is certainly conscious of the fact that he has company. Although he may not talk to anyone, although he may indeed, feel lonely and strange, he will at least have to take others into account as he threads his way through the maze. Yet those who happen to be in Times Square on most occasions can hardly be said to constitute a significant social group. They just happen to be there. They have little in the

way of a common interest. They influence one another, but not significantly.

When an individual leaves Times Square and descends into the subway, he joins another throng on the platform. By this group he is influenced somewhat more, especially if it is close to the dinner hour. This group has more of a common interest, although it is fleeting. When the individual finally gets home he finds himself in a still more significant group — his family. It is more important because of what it does to him. Groups are meaningful in accordance with the way they function in human life. Although human life is full of group experience, this experience is of varying degrees of significance.

Because human groups are so numerous and diverse, attempts have been made to classify them. A common basis of differentiation has been the ground of the primary function served by the group: this division gives us educational, religious, recreational, political, economic groups, and the like. Degree of permanence is another basis for cataloging groups; groups range all the way from the highly volatile to the highly stable; we shake one individual's hand and never see or think about him again; another relationship grows through the years and lasts a lifetime. Again, such criteria as age, sex, and race distinguish groups; there are, for instance, orphan asylums and old people's homes, Williams College and Wellesley College, the National Association for the Advancement of Colored People, and the National Jewish Congress. Ellwood has distinguished between sanctioned and unsanctioned groups; Giddings divides public from private groups; and Bogardus calls attention to the difference between disjunctive and overlapping groups. Chapin points out that, besides those groups which are visible and which function openly, there are the invisible groups which work under cover, such as underworld gangs, labor-espionage agencies, behind-the-scenes political clubs. Other writers emphasize the difference between vertical and horizontal groups. When we cut up societies vertically, we get such groups as communities, nations, or states; whereas, when we cut across these larger units, we get horizontal layers such as social classes.

Many of these classifications, although frequently encountered in the literature of sociology, are of limited usefulness. They are either too obvious or too arbitrary. The classification according to interests (political, educational, recreational, etc.) suffers from the first fault. Most of the other arrangements, it will be noted, are dichotomies; they split social groups into two camps which are presumed to be mutually

exclusive. Thus social groups are labeled as permanent or impermanent, sanctioned or unsanctioned, public or private, sacred or profane, when as a matter of reality these opposites are merely end terms in a series. Between the pure types are the great majority of hybrid groups which represent various grades and degrees. This tendency to divide all things into two neat piles is deep-rooted in man. The reader has already seen how it is expressed in regard to personality types such as introvert and extrovert, leaders and followers. Now we see it again in reference to the classification of groups. It may be but one more manifestation of man's desire to appraise all things as either good or bad.

IN-GROUP AND OUT-GROUP

Probably no better example of this tendency can be had than is afforded by the distinction between in-group and out-group.[1] In-group and out-group relationships exist where groups have a feeling of strangeness or enmity toward each other. Under such circumstances, all the members of the same group constitute an "in-group."

"Sympathetic" and "categoric" contacts. It will be seen that the significance of the in-group lies partly in the fact that we tend to be kindly disposed toward one whom we identify with our own group. We are inclined to treat him sympathetically, that is, with something of the personal touch. Toward a member of the out-group we are likely to have less favorable attitudes, such as indifference, suspicion, or scorn. After all, he is not "one of us." Instead of dealing with him as a person, we deal with him as a representative of a group. We put him in a category: Negro, Jew, or foreigner, as the case may be. Indeed we may designate him by less respectful, "emotionalized" names: "Nigger," "dirty foreigner," and the like. The Greeks called all who were not Greeks barbarians; and the ancient Jews had something of the same feeling in calling all others Gentiles. It is thus a group characteristic to make a profound distinction between members and non-members and to treat the two groups differently.

Ethnocentrism. The preferential feeling which individuals have for their own group is frequently referred to as ethnocentrism. There is a tendency to regard one's own associates as the chosen people, one's culture as the best of all cultures, and one's community as "God's own country." The "best" fraternity is usually one's own. Many colleges

[1] W. G. SUMNER, FOLKWAYS, p. 12.

have the "finest campus in the country." As Oliver Wendell Holmes observed, "The axis of the earth protrudes through the center of each and every town." Individuals tend to be group-satisfied. Americans are no exception, as Deutsch [1] has shown by her experimental studies. She worked out a series of tests for measuring the degree of an individual's preference for the ways, values, and so on, of his own group. In one test, for example, the individual is confronted with pictures of attractive women from various races and cultures and is asked to tell which one he thinks is most beautiful. In another test the individual is asked to select from the proverbs of various peoples the best way of expressing a common idea. In a third test the question is to indicate which method of writing one thinks is most practical: the Hebrew method of writing from right to left, the Chinese method of writing up and down, or the European style of writing from left to right. As might be anticipated, ethnocentric replies predominate in the average case. Americans insist on the superiority of the left-to-right method of writing, which is their own. Yet curiously enough, so far as efficiency in writing is concerned, such meager experimental evidence as is now available seems to favor up and down writing as opposed to either sort of lateral writing. The comment of one subject taking this test "Left to right, well, it *is* the most practical

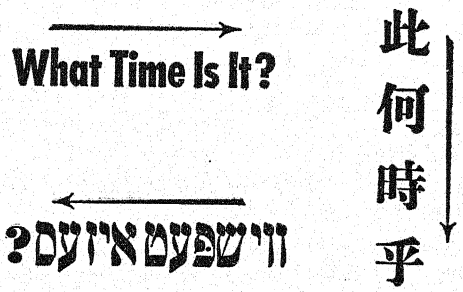


FIGURE 38. ETHNOCENTRISM IN REGARD TO HANDWRITING

English writing is from left to right, Chinese is from top to bottom, while Hebrew is from right to left. When asked to choose which was the best method, Americans thought, of course, that writing from left to right was best. Actually, in training children to write, the advantage seems to be with the Chinese method of writing from top to bottom. This tendency for the group to think the things it does are the best is found also in fashions, morals, manners, law, and even sometimes in material culture.

[1] G. F. DEUTSCH, CONFORMITY IN HUMAN BEHAVIOR WITH A TEST FOR ITS MEASUREMENT, Master's thesis, Columbia University Library, 1923.

way" shows how individuals become irrationally conformed to the ways of their group without knowing it.[1]

"Consciousness of kind" [2] *in primitive society.* When he made the distinction between in- and out-groups, Sumner was dealing with primitive societies. Here the distinction has greatest validity, as may be inferred from the following account of the situation among the Australian blackfellows:

> When [for example] a stranger comes to a camp that he has never visited before, he does not enter the camp, but remains at some distance. A few of the older men, after a while, approach him, and the first thing they proceed to do is to find out who the stranger is. The commonest question that is put to him is "Who is your maeli?" (father's father). The discussion proceeds on genealogical lines until all parties are satisfied of the exact relation of the stranger to each of the natives present in the camp. When this point is reached, the stranger can be admitted to the camp, and the different men and women are pointed out to him and their relation to him defined. I watched two or three of these discussions in West Australia. I took with me on my journey a native of the Talainji tribe, and at each native camp we came to, the same process had to be gone through. In one case, after a long discussion, they were still unable to discover any traceable relationship between my servant and the men of the camp. That night my "boy" refused to sleep in the native camp, as was his usual custom, and on talking to him I found that he was frightened. These men were not his relatives, and they were therefore his enemies. This represents the real feelings of the natives on the matter. If I am a blackfellow and meet another blackfellow that other must be either my relative or my enemy. If he is my enemy I shall take the first opportunity of killing him, for fear he will kill me.[3]

[1] The explanation for such behavior is, of course, to be found in the conditioned response, or habit formation. If one is exposed for a considerable period of time exclusively to a new set of cultural values and social stimuli, a new set of attitudes may be established which seem as natural to the person as did the ethnocentric attitudes he had before. The explorer Livingstone reports that after long habituation to black faces in Africa, he was shocked at the sight of white men. "One feels ashamed of the white skin; it seems unnatural, like blanched celery or white mice." (D. LIVINGSTONE, THE ZAMBESI AND ITS TRIBUTARIES [New York: Harper and Brothers, 1866], p. 379.)

[2] Phrase coined by FRANKLIN H. GIDDINGS to describe the discriminate allegiance of members of an in-group. STUDIES IN THE THEORY OF HUMAN SOCIETY (New York: The Macmillan Company, 1922), p. 17.

[3] A. R. RADCLIFFE-BROWN, "THREE TRIBES OF WESTERN AUSTRALIA," JOURNAL OF THE ROYAL ANTH. INST., 43:151. "The typical primitive community is... a little island of friends amid a sea of strangers and enemies," writes L. T. HOBHOUSE in THE MAKING OF MAN (New York: Modern Library, 1931), p. 828.

It is evident that in primitive society the sense of belonging to the group is very acute. The community is usually small enough to permit the individual to feel completely identified with it. Moreover, there are few separate groups with which the individual can affiliate, and in all of these he is likely to have essentially the same associates. There are a few exceptions. In some preliterate societies the women are excluded from certain organizations, such as religious cults and fighting groups. The men's groups might thus be in-groups, with reference to which the women would count as an out-group. Or again, there may be a division on the basis of age, the youth being kept out of activities engaged in by their elders. Important as these distinctions may be, they are overshadowed in significance by the fact that the individual is so completely tied up with his larger group. If he should somehow offend his group greatly and as a result be cast out, he might be an easy prey for other tribes or fare badly in his unaided struggle with the natural world.

In-group feeling in modern society. There can be no doubt that even in the modern world distinctions drawn between in-groups and out-groups may be very real. The point to be recognized here, however, is that there is variability in in-group out-group relationships according to the degree of sensed opposition between groups. The medical doctors set themselves decisively apart from the osteopaths. Bitter rivalry exists between the Congress of Industrial Organizations and the American Federation of Labor. When it was suggested in a certain town which had only 2000 persons, and eight large churches, that the various denominations merge their resources in order to eliminate the great economic and spiritual waste, each congregation was perfectly willing to allow the other seven to give up their identity, but not to give up its own. Yet elsewhere denominational mergers have occurred, showing the variability that exists in the strength of the in-group feeling in different groups in our society.

Still, a question may be raised as to whether the distinction between in-group and out-group has in our modern world quite the significance it has in primitive society. In our culture individuals are loaded down with group relationships. We belong to so many groups we may have a series of both in-group and out-group relationships with the same individuals because of our varying connections with them. For example, all those who have the same alma mater constitute an in-group. Yet the senior class is an in-group for which the freshman class is an out-group, and vice-versa. Again, the non-fraternity students comprise an

out-group for those who belong to fraternities, while each "house" is a separate in-group by itself. We may belong to so many groups that the mere fact of belonging to a group does not carry much weight. Our best friends, perchance, belong to other groups. Under the circumstances the groups to which we happen to belong may not command our undivided loyalty, as do those in primitive society. Nor is the loss of in-group status necessarily so serious. To be banished from a primitive society, as has been indicated, carried the threat of death. In our day exile need not be a great punishment. The former German Kaiser Wilhelm lived out his life comfortably in Holland and ex-King Alfonso of Spain carries on from his haven in France.

PRIMARY AND SECONDARY GROUPS

Another way to state the difference between in-groups in primitive society and those in modern society is to say that, whereas those among primitives are all primary groups, the same is not necessarily the case with ours. The term "primary groups" was introduced into sociological literature by Cooley [1] to describe certain groups, notably the family, play and neighborhood groups. He calls them primary because they are first both in time and importance. These are the groups of infancy and early childhood which have such great bearing upon personality development; [2] Cooley appropriately designates them "the nursery of human nature." They give the child sentiments such as loyalty, fair play, ambition, and sympathy, which make him truly human.

> By primary groups I mean those characterized by intimate face-to-face association and co-operation. They are primary in several senses, but chiefly in that they are fundamental in forming the social nature and ideals of the individual. The result of intimate association, psychologically, is a certain fusion of individualities in a common whole, so that one's very self, for many purposes at least, is the common life and purpose of the group. Perhaps the simplest way of describing this wholeness is by saying that it is a "we"; it involves the sort of sympathy and mutual identification for which "we" is the natural expression. One lives in the feeling of the whole and finds the chief aims of his will in that feeling.
>
> It is not to be supposed that the unity of the primary group is one of mere harmony and love. It is always a differentiated and usually a competitive unity, admitting of self-assertion and various appropriative

[1] C. H. COOLEY, SOCIAL ORGANIZATION, p. 27.

[2] Cf. Chapter VI, "Group and Personality."

passions; but these passions are socialized by sympathy, and come, or tend to come, under the discipline of a common spirit. The individual will be ambitious, but the chief object of his ambitions will be some desired place in the thought of the others, and he will feel allegiance to common standards of service and fair play. So the boy will dispute with his fellows a place on the team, but above such disputes will place the common glory of his class and school.

The most important spheres of this intimate association and co-operation — though by no means the only ones — are the family, the play-group of children, and the neighborhood or community group of elders. These are practically universal, belonging to all times and all stages of development; and are accordingly a chief basis of what is universal in human nature and human ideals. The best comparative studies of the family . . . show it to us as . . . a universal institution. . . . Nor can anyone doubt the general prevalence of play-groups among children or of informal assemblies of various kinds among their elders. Such association is clearly the nursery of human nature in the world about us, and there is no apparent reason to suppose that the case has anywhere or at any time been essentially different.[1]

These groups, said Cooley, are effective because they are personal in nature. As a rule they are marked by direct, face-to-face association. We see our friends, we talk to them, we rub elbows with them. Such direct contact is not essential, however, to a primary relationship. What does seem to be indispensable is the element of intimacy.[2] Cooley himself recognized this: " . . . the only essential thing . . . is a certain intimacy and fusion of personalities." [3] It is possible for two persons who have never actually met each other to develop, say through correspondence, a relationship having all the essential significance of a primary group experience. It was through a liking for each other's published verse that Robert Browning and Elizabeth Barrett developed their romantic interest in each other. More striking still is the experience of the great composer Tchaikovsky, who for years had the friendship and financial support of a rich widow, Madam von Meck. Although they carried on a voluminous correspondence, they never met; they saw each other but once, and then only by chance as their carriages passed on the street one day.[4]

[1] C. H. COOLEY, *op. cit.*, pp. 23–24. By permission of Charles Scribner's Sons.

[2] E. FARIS, "PRIMARY GROUP: ESSENCE AND ACCIDENT," AMERICAN JOURNAL OF SOCIOLOGY, 38:41–50, July, 1932.

[3] C. H. COOLEY, *op. cit.*, p. 26.

[4] C. D. BOWEN and B. VON MECK, BELOVED FRIEND: THE STORY OF TCHAIKOVSKY AND NADEIDA VON MECK (New York: Random House, 1937).

Primary groups in simple and complex societies. In primitive society, as has been suggested, individuals have few contacts which are not of the primary sort. The same situation exists in simple rural communities. There are only a few groups available with which the individual can identify himself. The groups themselves are small, hence the members have a chance to get well acquainted. The ready familiarity of small town life is proverbial. In the large urban centers, on the other hand, group life is highly differentiated. A person in a modern city may be a member of a score or more different groups. These may include the family, the church, the Y.M.C.A., an education group, an athletic club, a political organization, a bridge club, and a neighborhood society. The great number of groups with which a person may be affiliated is indicated by the following abridged account from the biography of President Nicholas Murray Butler of Columbia University in *Who's Who*:

> BUTLER, NICHOLAS MURRAY, Ph.D., LL.D. (Cantab.) Jur. D., Hon. D. Litt. (Oxen); President (since 1902) and Prof. of Philosophy and Education since 1889, Columbia University; also President Barnard College, Teachers College, and College of Pharmacy, 1904, New York; President St. Stephen's College since 1928; President N.Y. Post-Graduate Medical School, 1931; b. Elizabeth, N.J., 2 April, 1862; s. of Henry Lemy Butler and Mary J. Murray; m. 1st, 1887, Susanna Edwards Schuyler (d. 1903); one d.; 2nd, 1907, Kate La Montagne, Educ.: Paterson (N.J.) High School; Columbia Coll. (A.B. 1882, A.M. 1883, Ph.D. 1884); Universities of Berlin and Paris, 1884–85. Fellow of Columbia College, 1882–85; instructor in philosophy, 1885–89; adjunct prof. 1889–90; prof. of philosophy and dean of the faculty of philosophy, 1890–1902; member of New Jersey State Board of Education, 1887–95; Special Commissioner from New Jersey to Paris Exposition, 1889; president of Paterson (N.J.) Board of Education, 1892–93, and of National Education Assoc., 1895; first president of Teachers College, 1889–91; editor Educational Review, 1889–1920; Chairman, Administrative Board, International Congress of Arts and Sciences, St. Louis Exposition, 1904; chairman Lake Mohonk Conferences on International Arbitration, 1907, 1909–12; Watson Professor of American History and Institutions at British Universities, 1923; President American Branch of Conciliation Internationale; Trustee of the Carnegie Foundation since 1905; Trustee of the Carnegie Endowment for International Peace, 1910 (President since 1925); Carnegie Corporation since 1925; American-Slav Institute in Prague (President since 1924); Cathedral of St. John the Divine since 1914; Columbia University Press; Kahn Foundation for the Foreign Travel of American

Teachers; Director of the New York Life Insurance Company; Director of the New York Philharmonic-Symphony Society; Hon. LL.D. of Cambridge, St. Andrews, Manchester, Yale, Princeton, Harvard, Dartmouth, Williams, Johns Hopkins, Chicago, Tulane, Pennsylvania, Brown, Syracuse, Toronto, Wesleyan, Glasgow Universities, Univ. of State of New York, 1929; Univ. of California, 1931; Jur. D. Breslau, 1911; Strasbourg, 1919; University of Nancy, 1921; University of Paris, 1921; University of Louvain, 1921; Hon. Ph.D. Prague, 1921; Hon. Polit. Sc.D., University of Rome, 1927; D.C.L. King's College, Windsor, N.S., 1921; Hon. Ph.D. Universities of Budapest, Szeged, and Charles University (Prague, 1931); de la Legion d'Honneur, 1906, Commandeur, 1912, Grand Officer, 1921; Knight of the order of the Red Eagle 2nd Class (with star) (Germany), 1910; Grand Commander of the Redeemer of Greece, 1918; Grand Cordon of the Order of St. Sava First Class (Jugoslavia), 1919; Grand Cordon of the Order of Leopold, Belgium, 1921; Commander of the order of Polonia Restituta, with star, Class II (Poland), 1923; Knight Commander of the Order of Saints Mauritius and Lazurus (Italy), 1924; Grand Cross of the Order of the Crown of Roumania, 1927; the White Lion, First Class (Czechoslovakia), 1927; Grand Cross of the Crown of Italy, 1929; Hungarian Order of Merit, 1st class, 1921; Grand Officer, Austrian Order of Merit, 1931; Grand Officer Order of Orange of Nassau (Netherlands), 1933; Nobel Peace Prize, 1931; Goethe Gold Medal, 1932; member American Academy of Arts and Letters since 1911, Chancellor, 1924–28, President since 1928; Pilgrims Society (V.P. 1913–28, President since 1928); France-American Society (President 1914–24); Corresponding member of the Academy of Letters and Sciences, Naples, Italy, 1921; membre de l'Institut de France since 1923; Chairman of the National Committee on the reconstruction of the Univ. of Louvain, 1915–25; member of the Commission of the reorganization of the State Government of New York 1925–26; Vice Chairman of the Mayor's New York City Committee on Plan and Development, 1926–27; hon. member of the Kaut Gesellshaft, Berlin, 1931; Cor. member of the Associazione Internazionale per gli Studi Mediterranei, Rome, 1930; Hon. member of Institut International de Sociologie (Paris) 1930; Foreign member of the Czech Academy of Sciences and Arts (Prague), 1931; Vice President Stresemann Memorial Friedens-Stiftung (Berlin), 1931; hon. member Institute in Prague, 1931; Membre Titulaire de L'Academie Diplomatique Internationale (Paris), 1932; Foreign member of the Hungarian Academy of Sciences, 1932; Hon. member of the Worshipful Company of Stationers and Newspaper Makers, London, 1934; delegate, Republican National Conventions, 1888, 1904, 1908, 1912, 1916, 1920, 1924, 1928, and 1932; Chairman New York Republican State Convention,

1912; received Republican electoral vote for Vice President of the U. S. A., 1913; presented as candidate for President by New York Delegation to the Republican National Convention of 1920, receiving 69½ votes. Publications: The Meaning of Education; True and False Democracy; The American As He Is; Philosophy; Why Should We Change Our Form of Government?; The International Mind; A World in Ferment; Is America Worth Saving?; Education in the U.S. (2 vols.); Scholarship and Service; Building the American Nation; The Faith of a Liberal; The Path to Peace; Looking Forward; Between Two Worlds, 1934; etc. Recreation: golf. Address: 60 Morningside Drive, New York. T.A.: Butler, Columbia University, N.Y. T.: 3200 University. Clubs: Athenaeum, Reform, Union, Century, University, Metropolitan, Columbia University, Lotos (President 1932–34), Round Table Dining, Garden City Golf, Apawamis Golf, National Golf, New York University, Washington; Bohemian, San Francisco; Beach (Southampton); American, Paris (Hon.); Faculty, Columbia University.

If we compare President Butler's social life with that of a person in a little village we see that there is a real difference not only in the number of groups with which the two are affiliated but also in the nature of the group experience itself. The National Committee of the Republican Party is a different kind of group from the one that gathers around the base-burner in the crossroads store to talk politics. Being a member of the International Endowment for Peace gives a different kind of experience from being a member of the Four Corners' Missionary Society. In contrast to the informal and intimate relationships which the country experiences afford, those cited above from President Butler's experiences are more formal, casual, and impersonal. The groups which provide experience lacking in intimacy are called secondary groups.[1]

The essence of secondary group experience is casualness of contact. To be sure, many secondary group contacts are also indirect. One may be a member of a committee that never assembles but conducts its work by mail, so one never gets to meet the other members of the group. Other secondary group experiences are direct but impersonal; for instance, a student in a large lecture section sees and hears the lecturer, but he may never really get to know him. In this case the size of the group may have something to do with the gap that separates the two, but it would be a mistake to think that smallness of group insures intimacy. One woman who had been married ten years confided to a marriage

[1] The contrasting significance of primary and secondary groups in rural and urban communities is developed more fully in Part V.

consultant that she did not feel she knew her husband any better after these years together than she did when she first married him. Just as it is possible to have a close or primary relationship without face-to-face contact, so it is also possible to have face-to-face contact without intimacy.

Group Pressure and Social Control

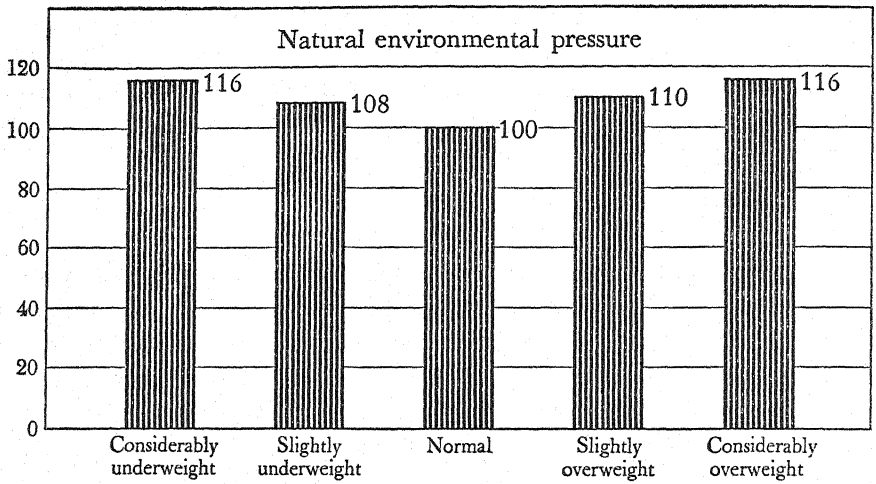
Because of the intimate nature of human relations in primary groups, the members are closely identified with one another. They are sensitive to one another's opinions; they seek to win group approval and to avoid group disapproval. In other words, primary group relations are effective influences on personality because of the pressure they exert. This point was so vividly portrayed in Sinclair Lewis' novel, *Main Street*, that the phrase, "Main Street," has come to be practically synonymous with "social pressure." In the story, a city girl, Carol Kennicott, marries a small town doctor. It is her first experience of living in a small community; and she quickly becomes the subject of intense group disapproval when she ignores established conventions and, in addition, attempts in a naïve way to set up a reform movement to make the town more beautiful. Incidentally, we are told that Carol had taken some courses in sociology at the university before her marriage, in which case, perhaps, the courses failed to include anything on the topic of social pressure. This phenomenon is far too significant for students of sociology to ignore.

ELIMINATION OF EXTREME TYPES

Something of the nature of group pressure can be learned from observation of environmental pressure, which is an impersonal force operating on animals and plants. This impersonal force is the means by which the environment selects for survival some of the variations in a species. Those that are not selected for survival are, apparently, the extreme variations. This is illustrated by an experience, reported in an earlier chapter,[1] in which sparrows were washed out of their nests by a heavy storm. Those that were revived represented the middle group. Those that were very big and those that were very small perished. Among human beings, it has been shown that giants have a life expectancy one half that of normal men.[2] Environmental pressure, then, seems to

[1] Chapter III.

[2] Metropolitan Life Insurance Company, statistical bulletin, 18:1, July, 1937.



Relative Death Rates for Ages Under 45 Years *

* Based on figures in L. I. DUBLIN, "THE INFLUENCE OF WEIGHT IN CERTAIN CAUSES OF DEATH," HUMAN BIOLOGY, 2:159–85, May, 1930.

SOCIAL PRESSURE

MARTYRS	CRIMINALS
Saint Peter	William Ireland
Saint Matthew	Cesar Borgia
Polycarpus	François Villon
Fabian	Sir Henry Morgan
Alban	Jonathan Wild
Saint Vincent	Dr. William Dodd
Basil	Count Cagliostro
Boniface	Gilderoy
Winceslaus	Barry Lyndon
Stanislaus	Mary Young
John Huss	Griffiths Wainewright
John Clark	"Sir Roger Tichborne"
Anne Askew	Charles Peace
Francis Gamba	Slade

FIGURE 39. GROUP PRESSURE AND ENVIRONMENTAL PRESSURE

Environment eliminates the extreme types in both directions, in the case of weight. To be like the average affords the best chance of survival. Does the group also cut off deviations from type in both directions? It seems from the above that society kills its saviors as well as its criminals.

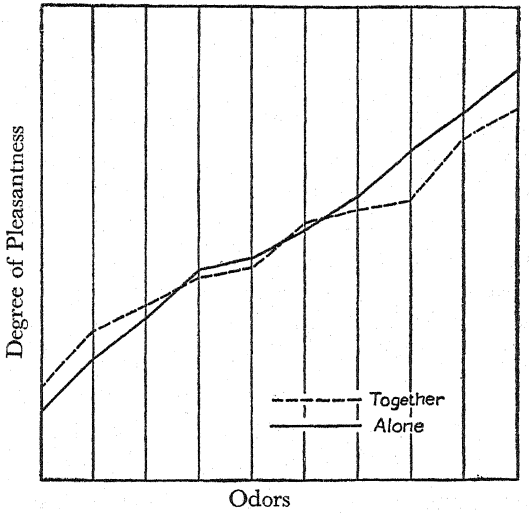


FIGURE 40. INFLUENCE OF THE GROUP UPON JUDGMENTS OF PLEASANTNESS AND UNPLEASANTNESS

The presence of the group cuts down somewhat the extreme judgments of an individual. From ALLPORT, SOCIAL PSYCHOLOGY, *p. 216 (Boston: Houghton Mifflin Company).*

cut off the extremes. This is probably the reason why the distribution of nearly all living phenomena conforms to a curve shaped like a bell, with many items near the average and few at either extreme.

It is an interesting question whether or not social pressure operates like environmental pressure to cut off extreme variations from the average. There is considerable evidence that social pressure does function in this manner. For instance, Allport [1] had 17 subjects rate five series of ten different odors as to the degree of their pleasantness or unpleasantness. The judgments were rendered both in and apart from the group. In the group, the unpleasant odors were judged to be less unpleasant and the pleasant odors less pleasant. The effect of the group was thus to cut off extreme judgments, suggesting that the group exerts a restraining or conservative influence on human behavior. It will be observed in this case that the judgment of the other members of the group was not a factor, inasmuch as these judgments were not announced. The pressure would therefore seem to be purely that of the group as such.

If, however, the members of the group hold decided views on a question and these views are known, then the effect is to encourage con-

[1] F. H. ALLPORT, SOCIAL PSYCHOLOGY, pp. 274–78. Allport found also that in estimating weights, extreme judgments were avoided in groups.

formity to the group opinion. Thus Moore [1] asked 95 subjects to make judgments in the fields of morals by indicating which of two ethical choices they regarded as less offensive; for example, disloyalty to friends or cheating on examinations. When all the replies were in, the subjects were informed as to the majority opinion, then retested. There was a swing away from the original answers. The effect of announcing the majority opinion was to bring about a greater degree of conformity to it. It is concluded, therefore, that the influence of the group is to make for moderate or conservative behavior on the part of the individual.

The cultural patterning of group pressure. Group pressure tends to cut off extreme deviates, but in the case of human groups this conclusion needs to be qualified somewhat. The reason is that human groups are cultural groups, in which the group pressure operates through the folkways and the mores. In every society certain beliefs and practices are approved, others condemned. Human societies do not, therefore, cut off all extreme deviants but only those who depart from the accepted patterns. Extreme variations from the average are permitted, and may even be encouraged, if they are in approved directions. A few examples may help to clarify these points. In the case of a sports-loving people, athletic expression will be favored; and if, besides, the social system is a competitive one like ours, individuals who deviate greatly from the average in athletic ability will be honored. Babe Ruth, the "Home Run King," was apparently an extreme variation from the average. On the contrary, those whose extreme variation lies in the direction of committing murder or rape are cut off from the group. Variation is evaluated in terms of the prevailing group standards. At one time Galileo was persecuted because his teachings deviated too far from the treasured beliefs of his time. Scientific inquiry into natural phenomena was then not sanctioned, and Galileo, an extreme deviant, was punished. Today such scientific effort is viewed with great favor, so a marked deviant like Einstein becomes something of a group idol. Modern cultures, however, do not look with such favor on scientific inquiry into social systems. On the part of social scientists, therefore, less deviation from established opinion is permitted than on the part of natural scientists.

The variation in values from one society to another means that a particular type of personality deviate may be condemned in one place

[1] H. T. MOORE, "THE COMPARATIVE INFLUENCE OF MAJORITY AND EXPERT OPINION," AMERICAN JOURNAL OF PSYCHOLOGY, 32:16–20, January, 1921; see also D. WHEELER and H. JORDAN, "CHANGE OF INDIVIDUAL OPINION TO ACCORD WITH GROUP OPINION," JOURNAL OF ABNORMAL AND SOCIAL PSYCHOLOGY, 24:203–06, July–September, 1929.

and honored in another. This rule applies, for instance, to certain kinds of psychopathic personalities. In our society a person who manifests epileptic symptoms, who has seizures, and goes into trances, is regarded unfavorably and may be institutionalized. But in many primitive societies, men who show such behavior are highly esteemed, and may become medicine men, or shamans, whose services are much scught, so that they become influential and rich. Their abnormalities are socialized, and are regarded as highly desirable rather than undesirable. On the other hand, persons who are normal by our standards may elsewhere be regarded with suspicion. In Dobu the group looks askance at a kindly, simple man who is not interested in cheating his neighbor or doing him magical harm. Such an individual feels considerable group pressure in this society where the successful are those who are able to defend themselves against the black art which is generally practiced.[1] In our society, the highly effeminate male feels the scorn of the group, but in Tchambuli, where the men are on the whole artistic and the women domineering and aggressive, it is the highly "masculine" male who is the misfit.[2] Again, in the Indian Southwest, where the group ideal is moderation and restraint, anthropologists have noted a few children who are extremely energetic and full of initiative, "just the type who would be a big noise in New York." In their own tribe, however, they are foredoomed to social failure. In New York, on the other hand, there are children who do not care whether they win a foot race or not. They are more interested in ideas than in getting ahead. "These children would be ideal citizens of Taos, New Mexico, but are apt to starve in a garret in Greenwich Village."[3] The definition of normal and abnormal personality is thus made by the group, which brings pressure to bear against those of whom it disapproves.

SOCIAL CONTROL: INFORMAL AND FORMAL

The pattern of pressure which a society exerts to maintain order and established rules is known as its system of social control. It will be noted from the discussion above that group pressure often operates on the unorganized, if not unconscious, level. In preliterate societies there are often few constituted authorities, in which case individuals have their

[1] R. F. FORTUNE, SORCERERS OF DOBU (New York: E. P. Dutton and Company, 1922).

[2] MARGARET MEAD, SEX AND TEMPERAMENT IN THREE PRIMITIVE SOCIETIES (New York: W. W. Morrow, 1935).

[3] JOHN LEVY, "THE IMPACT OF CULTURAL FORMS UPON CHILDREN'S BEHAVIOR," MENTAL HYGIENE, 16:208–20, April, 1932, p. 218.

behavior regulated automatically by unformulated social pressure. The folkways, mores, and group ideals are the forces involved, and public opinion and gossip are the means by which they are made effective. Even in small villages today, the effectiveness of gossip as a means of social control may be observed. "Sympathy, sociability, the sense of justice, and resentment," writes Ross,[1] "are competent, under favorable circumstances, to work out by themselves a true, natural order, that is to say, an order without design or art." Ross cites instances of such unorganized or informal social control in frontier societies, where order is effectively preserved without benefit of constituted authority.

The point deserves to be stressed that the group as a whole is often the best of disciplinarians. That is to say, the group itself is frequently able to exert more effective control over the conduct of its members than can an outside individual charged with special authority. As a rule the most efficient regulator of all is a group of persons of the same age and interests. A large measure of the success of modern nursery schools is due to this fact. Many a little child who is a serious disciplinary problem to his parents conducts himself properly when placed in a nursery school. He does not wish to court the disfavor of the other children, so gives up his antagonistic ways and conforms. The power of the group in regulating behavior is well illustrated also by an experience in a certain boys' reformatory. The old director had tried to keep order by a system of physical punishment administered by the guards. The result was not satisfactory. It is said that in talking to the boys the men always stood as a matter of precaution with their backs to the wall, for fear of an attack by another boy. The new director undertook to use the power of group opinion as a disciplinary force. The problem of disorder in the dining room was handled by giving a banner to the table with the best conduct, and with the banner went a double portion of dessert for each member at the table. If a boy threw a potato across the room he was at once under disapproval from the other members at his table because of the danger to their chances of winning the banner and of getting the extra desserts. Besides, if there was any general disorder, the privilege of attending the movies was taken away from the entire group. The responsibility for the maintenance of order was shifted from the guards to the boys themselves. Marked improvement in discipline resulted, confirming the belief that the organized group is itself the best disciplinarian of its members. It is only as groups grow large, or come to be com-

[1] EDWARD ALSWORTH ROSS, SOCIAL CONTROL, p. 41.

posed of individuals with conflicting moral standards, that informal controls yield priority to those that are formal, such as laws and codes. Moreover, in a large community, like a modern city, contacts tend to be impersonal, and escape into anonymity is possible. Under the circumstances, gossip is a less effective instrument, and its place is taken by the police and the courts. The increasing complexity of group life necessitates the development of formal and organized means of social control.[1]

[1] For further discussion of social control, see Chapter V.

SUMMARY

This chapter has considered certain significant aspects of the group factor in human experience. The group is something that man finds to his liking. Does man inherit a disposition to live in groups, or is the explanation to be found elsewhere? There is no proof that man has such an inborn tendency, but he is so dependent upon others for survival and for innumerable satisfactions that sociability early becomes one of his most important habits. Yet individuals differ in sociability, the habit being stronger in some than in others. While we look primarily to the group experiences of individuals for the explanation of these differences, it is possible that, indirectly, hereditary factors are of some importance here too. Evidence has been presented to show that the intelligence of individuals may affect the number and kind of groups to which they belong. No doubt the explanation is partly that the superior individuals find it easier to gain access into certain groups. It probably is true also that the group contacts and experiences in turn help to make them superior. In any event a long list of group affiliations, as in President Butler's case, looks well, though many of the connections may be nominal and call only for the payment of dues.

There are differences in groups, too. This makes it possible to classify them in countless ways. A distinction of importance is that between primary and secondary groups. In the first the relationship between persons is complete; in the second it is fractional. The result is that we feel we really know a person when we have a primary group relationship with him, but he remains for the most part a stranger to us if our only contact with him is in a group of the formal secondary type. Since the identification of individuals is closer in primary groups, the effects on personality are greater. Another important distinction is made between the groups to which we belong and feel loyal and those toward which we feel antagonistic. Above our own groups (in-groups) we tend to place a halo; competing groups (out-groups) we label with less attractive symbols. This ethnocentrism is evident in the modern nations.

Loyalty to the group results from pressure which the group brings to bear on its members to conform to established patterns. Group pressure punishes, isolates, or cuts off entirely individuals who deviate too far

from approved patterns. For this reason, as Thomas has put it, individuals do not as a rule rise much above, or fall far below, the level of the group. The pressures used by a society in regulating the conduct of its members comprise its system of social control. In small, homogeneous, relatively stable groups, where each individual is sensitive to the opinion of the others, informal control may be very effective, but in large, heterogeneous, or rapidly changing groups, formal instruments are required for adequate social control.

QUESTIONS FOR DISCUSSION

1. To what degree is the development of gregariousness in the child the result of learning?
2. Why are some people more sociable than others?
3. Are mass examinations a good or a bad thing? What kind of work can you do better in a group? Why?
4. Comment on the following quotation from a lecture by Chief Justice Hughes of the United States Supreme Court: "Every one who has worked in groups knows the necessity of limiting size to obtain efficiency."
5. How do attitudes toward members of the out-group differ from those toward members of the in-group?
6. What are the most important out-groups so far as your college body as a whole is concerned?
7. Why does the distinction between the in-group and the out-group tend to be more sharply drawn in primitive than in modern society?
8. To what primary groups do you belong? What is their significance for your life?
9. What is ethnocentrism? Are there any peoples who are not ethnocentric? Any groups in our society who are not?
10. What is group pressure? Why does it exist? Are all individuals who deviate widely from the average cut off by social pressure?
11. Why is ostracism from the group such a severe punishment?
12. How does social control in a primary group or community differ from that in a secondary community? Why?

TOPICS FOR REPORTS

1. A case study of an extremely sociable and of a markedly unsociable person.
2. A comparative study of the group affiliations and participation of six different persons.
3. Examples of ethnocentrism in current literature.
4. The "joining" propensities of the American Negro.
5. Gregarious tendencies in the animal world.
6. Modern nationalism as group sentiment.
7. Group pressure in an animal society.
8. Isolation from the group as a form of punishment.

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X. SUGGESTIBILITY: CROWDS AND PUBLICS

TWO KINDS of groups are outstanding in contemporary society. One is the gathering of individuals into great masses or crowds, the other is the organization of individuals on the basis of their differing interests and points of view into large groups or publics. For examples of both we may turn to the daily newspaper, which, like a mirror, reflects the social life of the community. What does the newspaper reveal? The courtroom at the murder trial is crowded to overflowing. Fifty thousand fans take in the football game. The President of the United States talks to 100,000 in the Coliseum. Crowds are legion. The newspaper is also like a variety shop. There is a section devoted to stocks and bonds and business affairs; this section is read by a special public, the business public. The section on fashions has its own particular readers or public. The interests of the athletic, the cross-word puzzle, and the radio publics are likewise represented. The newspaper caters to publics and curries their favor and support. The editorials are designed to mold public opinion.

THE NATURE OF THE CROWD

What is a crowd? The term ordinarily suggests a large number of individuals congregated in one place. Although a definite numerical minimum cannot be stipulated as a requisite, numbers are an important feature of the crowd. More important, however, is the factor of interstimulation and response. In the crowd there is a great deal of interplay among the members; where this is not so, the group is simply an aggregation, a collection of individuals without much social significance. Neither is the physical proximity of individuals, while a common characteristic of crowds, so significant as this factor of abundant interstimulation and response. The most important thing in a crowd is the effect upon each member of the presence of the others. This effect becomes dramatic when emotions are aroused, and it is the ease with which intense feeling is stirred in crowds that makes them so significant. The crowd, then, is

best defined in terms of function rather than structure. When, for example, some horrible crime occurs, such as the kidnaping and murder of a child, and a wave of intense resentment sweeps over the nation, the reaction resembles that of the crowd, although all the individuals involved are not massed in one place. What most distinguishes the crowd from other related groups is the considerable interstimulation and response, particularly on the emotional level. Excitement is the mark of the crowd.

The crowd is frequently differentiated from the audience, but the two are closely related. In the audience, attention is focused primarily upon some outside activity, and the members are not greatly affected by one another's presence or behavior. The audience is interested in the spectacle, the game, the play, the speech. But even so, there is something of the crowd situation. At the theater, for instance, before the performance starts, the members of the audience are generally employed in looking one another over. The pleasure one takes in the play may be somewhat affected by the kind and size of the audience present. During intermission, there is some milling about in the lobby. The transition from audience to crowd is easily made. In the case of a football game, for example, the audience readily takes on the characteristics of a crowd as the contest progresses, as emotions are aroused, as individuals give expression to their feelings and affect and are affected by the excitement of others. In somewhat the same way an audience listening to a speech may be converted into a crowd by a demagogue or a revivalist. An audience at the theater can be speedily converted into a crowd if someone shouts "Fire!"

The Bases of Crowd Behavior

Why, it may be asked, is man in the mass so carried away by emotion? Various observers have sought to account for the fact that human beings are dominated far less by reason and far more by feeling when in a crowd than when apart from one. The early students of the subject dealt with crowd phenomena in a mystical manner. Le Bon,[1] for example, advanced the idea that when men find themselves in crowds, a collective consciousness emerges and supplants their individual consciousness; this he calls the "law of the mental unity of crowds." Later writers offered more concrete theories but blundered into thinking that crowds are

[1] G. Le Bon, the crowd, p. 26.

socially abnormal entities. Thus, Martin [1] offers the Freudian view that crowds are the means of release for repressed wishes. According to this theory, powerful tensions are developed in individuals because modern society imposes artificial restraints on the expression of natural human impulses, such as for example, the sexual impulse. Crowds in turn afford opportunity for the release, in indirect, disguised form, of this pent-up energy. While this theory is no doubt helpful in accounting for certain phases of crowd behavior, it would be a mistake for the reader to think that all crowds are unnatural and pathological. By this theory, for example, it would be difficult to explain why crowd behavior occurs among the lower animals, as in the case of a stampeding herd. These remarks suggest that the reader should be critical of any theory which seeks to account in a simple manner for a complex phenomenon like the crowd.[2] In accounting for crowd behavior, it is necessary to consider the rôles of several factors: human nature, the group, and culture.

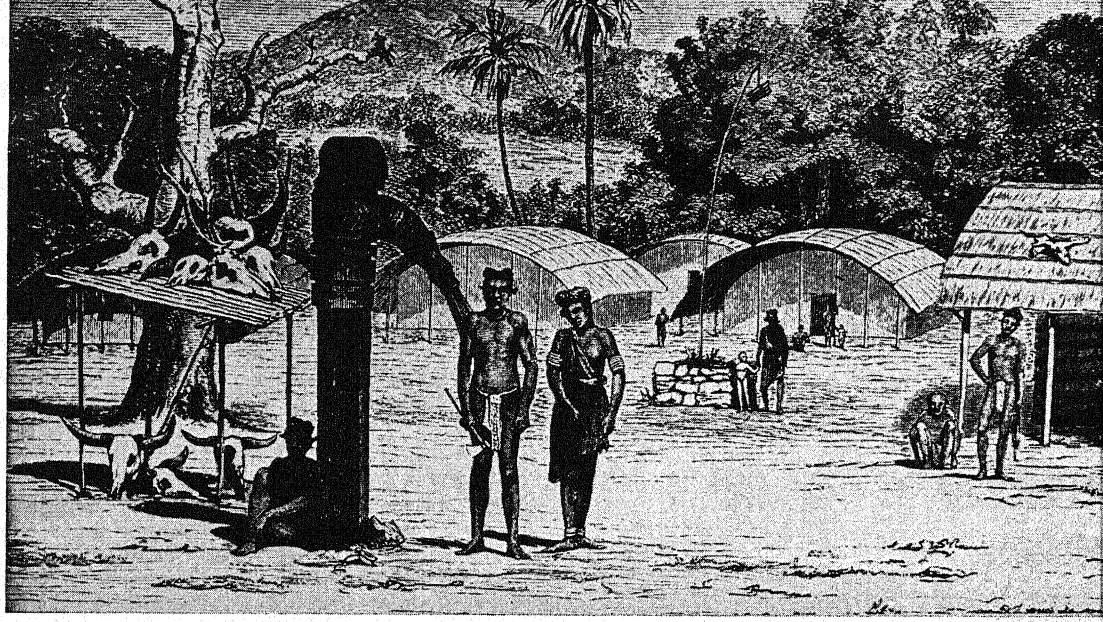
CROWD BEHAVIOR AND HUMAN NATURE

It is a matter of ordinary observation that human beings are capable of behaving quite emotionally when alone. A person may fly into a rage, tremble with fear, or shake with grief in the privacy of his own room. In times of serious threat to life, it is natural for an individual to lose his head and be beside himself with emotion. A man out in the ocean alone, and about to drown, will be greatly agitated. It is difficult to say how much more disturbed he would be if he were in a group facing the same disaster. The panic behavior of individuals when alone is probably little less intense than that of a group under the same circumstances.

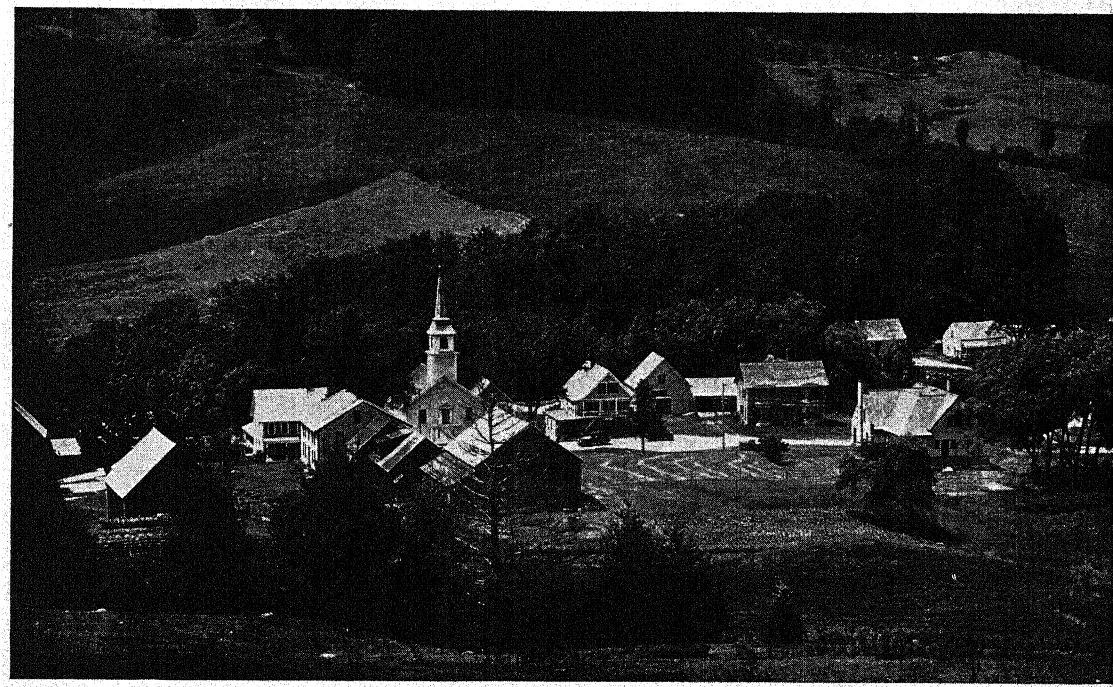
The emotionality which we associate with crowds cannot, then, be charged entirely to the group factor, or to the repressions induced by culture. Man, when he joins a crowd, is not possessed suddenly by a strange, invading emotion. Man is already a creature of emotion. He feels considerably more often than he thinks; his thalamus gets more exercise than his cortex. As it has become a commonplace to observe, much that passes as reason is only rationalization, or the finding of good excuses for doing what one feels like doing. In a word, when men join

[1] E. D. MARTIN, THE BEHAVIOR OF CROWDS (New York: Harper and Brothers, 1920).

[2] Cf. W. I. THOMAS, SOURCE BOOK FOR SOCIAL ORIGINS (Chicago: University of Chicago Press, 1909). The same caution is urged in a number of places in this book. It is important to note the limitations of "particularistic" or single-track hypotheses, where complex human behavior is involved.



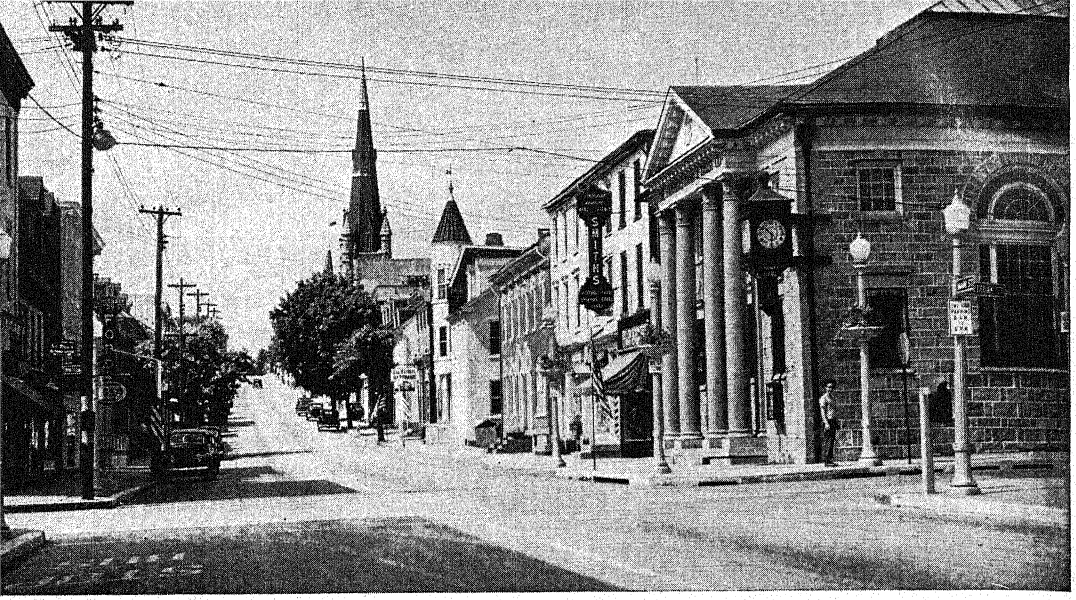
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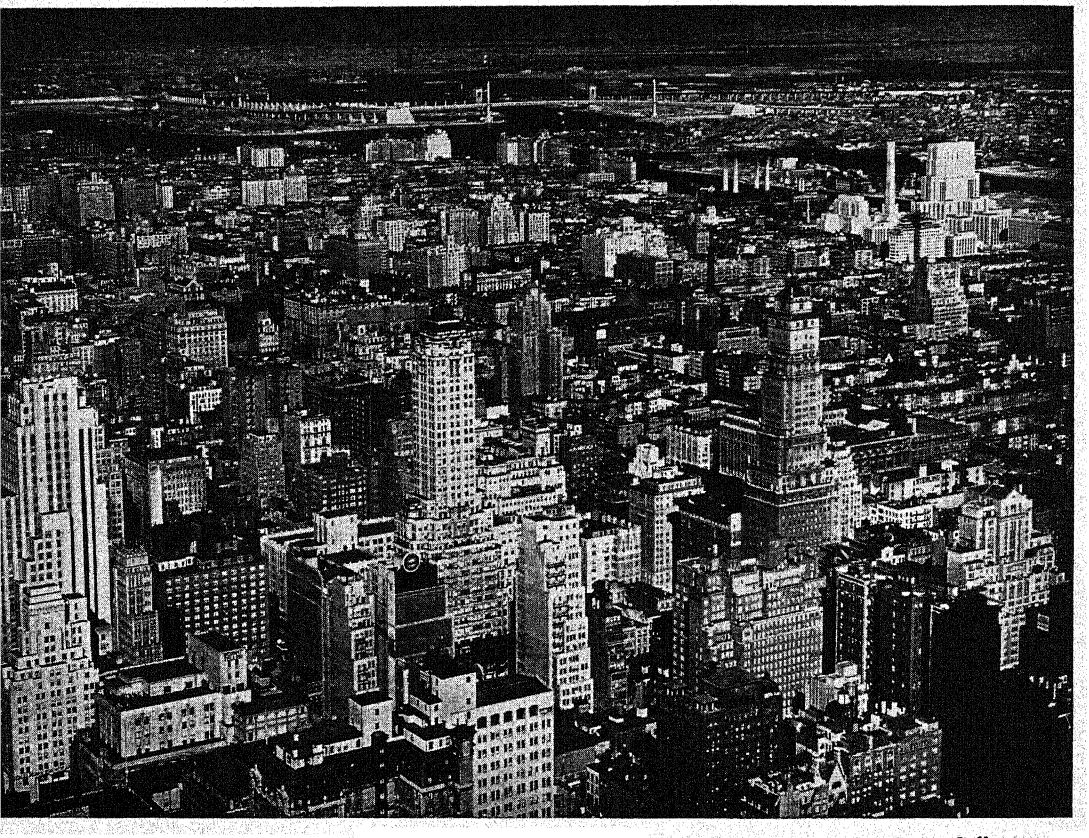
Ewing Galloway

PLATE 4. THE SIZE OF A COMMUNITY GREATLY AFFECTS SOCIAL LIFE

Before civilization the size of communities was very small; large numbers of great cities are phenomena of the last hundred years. When a community consists of only 10 or 15 individuals it is not possible to have the vast number of different associations and institutions found in large cities. The anonymity of the big city is greatly different from the neighborliness and social pressure of "Main Street." (See reverse side also.)



Ewing Galloway



Ewing Galloway

PLATE 4 (*continued*)

together into a crowd, they take with them the feelings they already possess. As was shown in a previous chapter,[1] these feelings have their roots in heredity and in the life experiences of the various persons.

If an individual has attitudes and habits which are fundamentally opposed to those of the crowd, he will not be taken in. The situation is much like that in hypnosis, where the subject will accept the suggestions of the hypnotist only so long as they do not run counter to his moral scruples. If morally obnoxious suggestions are given, they jolt the subject out of his semi-conscious sleep. In much the same way, the influence of crowds is limited by the existing attitudes and habits of the members. A critical student of religion who has a real aversion for emotional appeals is not likely to be carried away by the frenzy of a revival meeting. Likewise, white men have been aroused to extremes of emotion when in a mob attacking Negroes, and on certain occasions, as in the Chicago race riots, mobs of Negroes have shown the same intensity of feeling toward white victims; but there is no record of a Negro enthusiastically joining a mob of white men about to lynch one of his own race.[2] The crowd cannot elicit behavior for which there does not already exist a favorable basis in established attitudes and habits.

CROWD BEHAVIOR AND THE GROUP FACTOR

Still to be explained is the fact that individuals generally behave more emotionally in crowds than elsewhere. Why do so many people yell and cheer and contort themselves at football games, sometimes almost to the point of hysteria and exhaustion? These same individuals conduct themselves more decorously in other places. Certainly the crowd has something to do with the intense behavior.

The factor of suggestion. Crowd emotionality is perhaps best interpreted in terms of heightened suggestibility, that is, the tendency of an individual in a crowd to respond uncritically to the stimuli provided by the other members. This phenomenon of suggestion was considered in a previous chapter,[3] where it was shown that the individual learns to make almost automatic responses to the wishes of others, particularly those in authority and those he greatly respects. From infancy on, he is so dependent upon the judgment of others for direction in his own affairs

[1] Chapter V, "Heredity and Personality."

[2] ELLSWORTH FARIS, THE NATURE OF HUMAN NATURE (New York: McGraw-Hill Book Company, 1937), p. 76.

[3] Chapter VI.

that he comes to lean heavily on the opinions of others. Moreover, he learns to value highly the esteem in which other persons hold him, and consequently he courts their favor by conforming to their ways and wishes. For these reasons, among others, when he finds himself in a congenial crowd of persons, all of whom are excited, it is natural that he, too, should be affected.

The effect of suggestion is to produce a partial dissociation of consciousness. When we are critical about a matter, we give it close attention, and our whole interest is centered upon it. But when a suggestion is made by someone whom we esteem, our attention is divided, partly on the issue at hand, partly on the person who made the suggestion. The more awesome the source of the suggestion, the greater the degree of dissociation and the greater the amount of automatic behavior. Suggestions, it has already been shown, are more readily taken when given by someone in authority or someone with prestige. The crowd possesses such authority; it has the prestige of size. This is reflected, for instance, in the saying that "fifty thousand Frenchmen can't be wrong." While untrue, it indicates the widespread faith in the infallibility of numbers.

It is not difficult, then, to understand why individuals should be so suggestible when in congenial crowds. If, in addition, the crowd has a leader who is admired, the effect of the suggestion is still further heightened. The situation is illustrated by hypnotism, where the effectiveness of the suggestion depends on the attitude of the subject toward the hypnotist. No one can be hypnotized against his will; and the best results are obtained where close co-operation exists between subject and experimenter. This fact was interestingly shown in a pair of experiments [1] with elementary school boys in Oxford, averaging about thirteen years in age. In one test the boy was shown an electrical device and allowed to get a shock from it. He was then told to take hold of it again and report at once any further shock received. It was suggested that the current would be turned on gradually, and the test would be to see how small a current he could feel. Several of the boys felt the shock in just a few seconds. Actually the current was not turned on for thirty seconds, after which time all reported it. The quicker the report, the more suggestible the boy was considered to be. In this test, the experimenter was present, and exerted an influence because of his

[1] G. H. ESTABROOKS, "EXPERIMENTAL STUDIES IN SUGGESTION," JOURNAL OF GENETIC PSYCHOLOGY, 36:120–39, March, 1929.

authority, a type of influence known among social psychologists as the "prestige factor."

In the second test, there were sixteen boxes, all of the same size but varying in weight according to the amount of metal with which they were loaded. The boy was given a metal box and asked to compare this with each of the sixteen boxes, to find which equaled it in weight. During this test, the experimenter turned his back on the subject and engaged in conversation with some of the other boys in an effort to eliminate the prestige factor. In this experiment, the scores approximated the normal probability curve, whereas in the first test, with the prestige factor present, the result was a U-shaped curve, with a large number resisting the suggestion, a large number accepting it, and a small number in between. It is easy to see from this how widespread suggestibility can be produced in a congenial crowd, led by a greatly admired leader. It helps us to understand the frenzy of a camp meeting led by an able evangelist like the late Billy Sunday, or the hysteria of a Nazi mass meeting led by Hitler.

Milling and crowd rhythm. Another element making for greater suggestibility in crowds is the factor of crowd rhythm. It is known that suggestions are more effective if they are even and regular and continuous. Crowds may furnish such rhythmic, repetitive stimuli. The very milling about of the crowd is itself somewhat hypnotic in effect. In addition, crowd activities such as singing, cheering, dancing, and so forth, follow rhythm patterns. They serve to break down the barriers between individuals and accentuate the feeling of group solidarity. Demagogues, evangelists, and other skilled leaders use these techniques in winning crowds to their purposes. The orator is an expert in rhythmic speech; he literally as well as figuratively sways his audience.

It is to be observed, furthermore, that the crowd heightens the suggestibility of the individual because of the volume of stimulation involved. The individual in the crowd is bombarded by suggestions from every side, and the cumulative effect is very great. Also, the emotion works around in a circle and so is still further enhanced. For instance, A is affected by the excitement of B, C, and D. A, excited, in turn stimulates B, C, and D and increases their excitement, which reacts on A and further heightens his emotions, and so on. Such mounting contagion is seen frequently in religious revivals, where individuals are progressively stimulated until they give way to most extraordinary behavior, such as barking, or bouncing, or jerking in every joint. It is

apparent, then, that the key to crowd contagion is to be found in the facilitating effect of the group upon the suggestibility of its members.

Security in the group. Still another way in which the group factor operates to influence crowd behavior is through the security which the individual feels when he is part of the mass. He does not feel ridiculous when he contorts himself at a football game, because others are doing the same; his behavior is not individualized. Even where the culture may disapprove of the actions being carried on by the crowd, as, let us say, in the case of lynching in certain regions, the individual nevertheless may feel secure. Individuals who would not think of committing murder are not reluctant to join a lynching party. The explanation would seem to lie partly in the fact that the action seems more defensible when carried out by the group and partly in the fact that individual responsibility is blotted out. The participants remain anonymous and there is no one upon whom the authorities can pin the offense.

CROWD AND CULTURE

While crowds are natural phenomena, it would be an error to assume that they are unaffected by culture. Crowd behavior is subject to cultural regulation. In our own society, for example, certain types of crowd behavior are approved and others not. People behave the way they do at boxing or wrestling matches, let us say, because their behavior does not meet with social disapproval. The same shouting and gesticulating would not be countenanced on Broadway. All this seems obvious, yet has not been generally appreciated by students of crowd behavior. Lately, much has been written about the "pathology" of the crowd. It is pointed out, for instance, that some individuals in revival meetings, at least temporarily, behave not unlike some individuals in insane asylums. In the religious frenzy, participants may shake in every joint, others may throw themselves to the ground and continue to bound from one place to another, while still others give way to uncontrolled laughing, or sobbing, or shouting.[1] These individuals are not removed to an insane asylum, because the community does not disapprove their behavior. Society thus sanctions behavior in the crowd which it condemns in the individual. There are also certain types of crowd behavior upon which our organized society does not look with favor, for example, race riots and sexual orgies. The latter are, however, permitted in various

[1] F. M. DAVENPORT, PRIMITIVE TRAITS IN RELIGIOUS REVIVALS (New York: The Macmillan Company, 1910).

primitive societies, on special occasions. It is thus concluded that crowd phenomena are subject to cultural control.

In addition to affecting the nature of existing crowd behavior the prevailing culture influences also the amount of such behavior. The latter, of course, follows from the former, for if there is general disapproval of mass emotional conduct, crowds will be scarce. It will be recalled from the discussion in an earlier chapter that the Zuni culture emphasizes great emotional restraint and moderation, while the Kwakiutl is given to excesses. Again, if we compare modern with primitive societies, we find that crowds with us are both larger and more numerous. The smallness of the primitive community obviously limits the size which crowds may attain. Civilization has made possible enormous increases in population; and one of the distinctive features of modern culture is the massing of more and more of the population in cities. The presence in a limited area of such large numbers of individuals makes possible both larger crowds and a larger number of crowds than can exist in preliterate societies. Inventions like the public address system help to keep attention and so build up a crowd unity among several hundred thousand individuals gathered in one place.

There are differences in crowd behavior not only between civilized and preliterate societies but between various modern societies as well. Those that are more highly urbanized probably show more crowd conduct than do those that are still largely rural. Even as between two highly urbanized cultures, there may be striking differences in the behavior of crowds. Observers have been impressed, for example, with the contrasting conduct of crowds in America and in England. In the United States, large celebrating crowds are likely to be boisterous, careless of public property, and disrespectful of law and order. After a celebration in a public park in an American city, the ground is likely to be covered with old newspapers, empty pop bottles, and other litter. Public property may be mutilated. In England, not thousands but actually millions of people camped for days on the public park facing Buckingham Palace during the celebration of the twenty-fifth year of King George V's reign, and it is reported that when the affair was over not a trace of any kind of refuse was to be seen in the park and not a single flower had been plucked from the large flower beds.[1]

[1] For a graphic account, see SIR PHILIP GIBBS, ENGLAND SPEAKS (New York: Garden City Press, 1935), chap. 1. "Emotional reserve" and "self-control" are mentioned as dominant traits of English culture by RUTH BENEDICT, "CONFIGURATIONS OF CULTURE IN NORTH AMERICA," AMERICAN ANTHROPOLOGIST, 34:1–27, January–March, 1932.

Interesting contrasts are also presented by rioting mobs in different societies. Assault and battery are much more common in English-speaking countries than in France, where rioters wreak their vengeance on property rather than on persons. In the widespread Paris riots of 1934, so extensive as to lead some observers to believe a general political upheaval was imminent, there was much damage to property but little loss of life. This has been attributed to a number of factors, such as the effect of the Catholic religion, with its emphasis on the sanctity of human life, and the stringent French laws against assault, which date back to the days after the Revolution.[1] These examples show that the crowd behavior of a whole nation is conditioned by the prevailing culture.

The Transition to Reasoned Behavior

At the same time that modern culture gives increasing place to crowd phenomena, it also provides an increasing number of checks upon emotional conduct. We thus have two movements in civilized society, one curbing the other. But the odds in this contest are not even. Man is so given to crowd behavior, that is, to irrational and emotional conduct, that the forces making for rationality operate at a decided handicap.

Man is highly suggestible. He does not stop to think things out for himself but accepts the ideas of those about him, particularly the ideas of those in authority. In one experiment, a list of propositions regarding medical matters was put before students who had not had any medical training, and they were asked to indicate whether they thought the statements were true or false. The students could only guess because the material was highly technical. Half the statements were true and half were false. The students marked three out of four as true. This test supports the observation that human beings tend to be credulous.

CHECKS ON SUGGESTIBILITY

As man has become more civilized, he has taken measures to protect himself against his own credulity. His problem is to keep from reacting instantly and automatically to suggestion. To meet this need, man has in the course of time developed various devices such as the debate, the public forum, and the scientific method. In a debate the suggestions released by one side are challenged by the counter-suggestions of the other side. The forum provides even more protection against the

[1] R. La Pierre, collective behavior, p. 548.

dangers of suggestibility, because the participants are encouraged to ask questions and to cross-examine the spokesmen for particular points of view. Science and scientific method furnish the greatest protection against emotional and irrational conduct. Suggestions are not enough; science demands evidence. The evidence, besides, must conform to certain conditions required by logic and scientific method. The seal of science is withheld from any finding until it is verified and found to be reliable.

Cultural devices such as those just indicated are useful as checks on suggestibility, even though they do not constitute anything like a complete defense against irrational or emotional conduct. There is indeed no such thing as an unsuggestible individual. Some persons may be more suggestible than others, but even this is by no means certain, since the studies undertaken in this field test individuals in only a very few of their life situations. Perhaps individuals differ not so much in degree of suggestibility as in the kinds of stimuli to which they are suggestible. However this may be, it appears that cultural aids such as schooling or scientific training do lessen the chances that a person will behave irrationally or irresponsibly in certain situations. This is shown by an experiment [1] at the University of Iowa in which a simulated kidnaping episode was worked out in detail as to locale, persons, and timing. This was then reduced to a series of news bulletins. By pre-arrangement, a dramatic reader appeared before some classes in psychology and read the bulletins. The kidnaper had been caught, had confessed, and a mob was forming to lynch him. What part would the students wish to play? Only one subject in ten would resort to drastic action. "With respect to age, college education, and the best evidence available on general intelligence, the averages for subjects electing the different courses of action increased similarly and consistently along the scale as the subjects respectively elected to participate in, observe, deter and avoid action." In other words, the students tended to avoid mob behavior as they approached the higher end of the scale in age, college education, and general intelligence. These facts support the findings of another study [2] that most participants in lynching mobs in the United States are

[1] G. H. MENNENGA, A TECHNIQUE FOR THE STUDY OF CROWD BEHAVIOR; H. J. STOLTZ, A STUDY OF INDIVIDUAL RESPONSE IN A CROWD SITUATION (unpublished M.A. theses), Department of Psychology, University of Iowa, 1933, 1934. Studies made under the direction of DR. NORMAN C. MEIER.

[2] A. F. RAPER, THE TRAGEDY OF LYNCHING (Chapel Hill, N.C.: University of North Carolina Press, 1933), p. 11.

shiftless or uneducated youths. Education may lessen the probability of crowd contagion, even if it does not eliminate it.

Man may not only take advantage of the various cultural defenses against crowd suggestion, but he may also seek to protect himself by avoiding crowds. It is not uncommon for those who have creative work to do to isolate themselves. This they do either by removing themselves from their usual surroundings or by avoiding their associates. John the Baptist went into the vastness of the desert to meditate; his was "a voice crying in the wilderness." It was the top of Mt. Sinai that Moses chose for communing with his God. Many writers and scientists lock themselves in study or laboratory. Browning shut himself up in his workroom for days at a time. When hot on the trail of a new invention, Thomas Edison worked, ate, and slept in his laboratory, protected from all disturbance. While in some cases the primary motive for such isolation is the desire to avoid distraction and interruption, certainly in other cases the motive is to get "far from the madding crowd" in order to be able to think more clearly.

Isolation from others is easier to achieve in present-day society than it was in times past. In previous societies, individuals living side by side in a community were neighbors. They had many interests in common and were therefore interested greatly in one another. One could scarcely withdraw from the group without attracting attention. All this has changed in modern society.[1] We may have little or nothing in common with those who chance to live near us. Contrariwise, interests may be shared by individuals who live far apart. In other words, "interest contacts" tend to replace proximate contacts, and publics become increasingly significant.

THE NATURE OF PUBLICS

A public is a group inclusive of all individuals vitally concerned with a particular set of social values. There is, for instance, the motion-picture public, consisting of all persons who take an active interest in what comes out of Hollywood. Like the crowd, the public calls for numbers; and like the crowd, the public may vary greatly in size. The public which follows the destiny of the motion-picture stars is very much bigger than, say, the public which follows the destiny of the American Indian. More important, the public derives much of its significance from the fact that its members are often not in agreement on the issues which con-

[1] For fuller discussion of this point, see Chapter XVII.

front them; or, stated in sociological terms, the members of a public have different attitudes toward their common social values. Thus, the motion-picture public is divided over such issues as the best picture of the year, the relative merits of the various stars, and the necessity for federal censorship of the industry. We see from this that the public is characterized by discussion and argument. It is the dependence of the public on processes of deliberation that chiefly sets it off from the emotional crowd.

Although we usually talk about "the public" as if there were one all-inclusive group, actually our society is made up of a very large number of special publics. The more complex, the more rapidly changing the culture, the greater will be the number of special publics. At the present time in our society we probably have an unprecedented number. As was pointed out in the preceding paragraph, however, some social concerns have a larger following than others. It may therefore be appropriate, while designating the separate miscellaneous interest groups as publics, to retain the singular form, the public, as the name for a very inclusive group, such as is concerned with a presidential election or the question of whether one's country should declare war.[1]

CULTURE AND PUBLICS

Publics, like crowds, vary from culture to culture. Thus, both the number and variety of publics is much greater in modern than in preliterate society. On the lower levels, where culture is much more simple, division of labor is naturally not carried very far. In our society, on the contrary, there is a very great deal of specialization, hence there are numerous publics, for each specialty is a distinct "interest group" with its own activities and values, and its special "universe of discourse." To cite but a single illustration, in rudimentary societies there are relatively few sports, and these are quite informal, while in our own modern culture we have an amazing proliferation of highly organized sports, hence numerous sports publics; followers of football, baseball, soccer, tennis, ping-pong, squash racquets, golf, rowing, sailing, the numerous assortment of track and field events, swimming, land and water polo, bowling, billiards; auto, horse, and bicycle racing, boxing, and wrestling, to mention but a few.

[1] Cf. C. D. CLARK, "THE CONCEPT OF THE PUBLIC," SOUTHWESTERN SOCIAL SCIENCE QUARTERLY, March, 1933; also F. E. MERRILL and C. D. CLARK, "MONEY MARKET AS A SPECIAL PUBLIC," AMERICAN JOURNAL OF SOCIOLOGY, 39:626–36, March, 1934.

Where publics are scarce, there is less public opinion, for public opinion can be said to exist only when a difference of opinion obtains among the members of a public on a controversial matter. When the group is in immediate agreement on the manner of handling an issue, the decision or "definition of the situation" will be in terms of the existing folkways and mores. Among preliterates, crises are generally dealt with in terms of the folkways and mores.[1] There is, for example, much less difference of opinion among Eskimos as to the care of the sick than there is in our society. There is a set routine through which only the medicine man can go. The alternatives to using the medicine man are few. With us the situation is far different. Various publics favor various kinds of "medicine men": physicians, osteopaths, faith-healers, herbists, occultists. Different notions exist as to how these individuals should be paid: a large section of the public would like to see doctors employed by the state just as school teachers are, while the medical profession on the whole prefers to retain the fee basis. Further, there is a division of opinion as to what a physician should do in the case of a patient who is incurably sick and in great agony. Lately a number of prominent doctors have come out in favor of euthanasia; and no doubt a much larger number practice it. Public opinion is, however, still largely opposed to such "mercy killing."

When primitive and modern societies are compared, the latter are seen to be confronted not only by a greater number of issues than the former, but also by vastly more difference of opinion as to how these issues shall be met. Respecting education, for example, a controversy rages in our society as to what sort of training is most worth while. Shall it be broadly cultural or specifically vocational? If cultural, what shall be the relative emphasis given to literature, the physical sciences, the social sciences? What methods of instruction should be followed? Shall the curriculum be traditional or progressive? Subject-centered or child-centered? Shall the child be free to attend school if he wishes, or shall attendance be compulsory? Shall he be kept in school or shall he be permitted to work for pay? These are only a few of the more important educational problems of our society on which a divided public opinion exists. Such conflicts are rare in simple, stable, homogeneous societies such as are found among preliterates, but are quite characteristic of

[1] Definite rules of conduct are more useful in such a society, where conditions remain essentially the same, than in a modern society like ours, where conditions change constantly. This point is further developed in Chapter XXVIII, "Adjustment of Man and Culture."

societies like our own that are complex and undergoing rapid changes. What is true of education is also true of the other phases of organized social life, such as religion, government, and the family.

Publics differ not only in preliterate and literate societies but in rural and urban communities as well. The term public harks back to the "public assembly" of colonial times. The smallness of rural communities made it possible for the whole population to gather on the commons or at the town hall to consider and take action on the issues confronting the group. Since all the townsfolk were well acquainted with one another, the public in this case was a primary group. Such local publics are still to be found in rural areas, but even here they are less significant because of the greater concern over state and national affairs.

In the city, the political public is definitely a secondary and "distance-contact group." Individuals who share common political sentiments are strangers to one another. They support, through the machinery of political parties, candidates they seldom know personally; and except for occasional special issues which come into the limelight, the political public is ignorant of what transpires at the state or national capitol.

Other publics in our urban culture show the same traits. The members have little or no contact with one another. They are held together by a common interest, but so great are the number of interests which individuals have that they find it difficult or impossible to keep abreast of developments. Moreover the issues involved in disputes are often exceedingly complicated and the ordinary member of a public may lack either the time or the facilities to make a careful judgment. In an increasingly complex and rapidly changing world such as ours today, the individual is extremely dependent upon the judgment of others,[1] which makes him particularly vulnerable to exploitation.

Public Opinion Management

Publics are often scattered, loosely organized, and confused. On the other hand, there are in modern society various organized groups of individuals who know what they want and are out to get it. They have products, or services, or ideas they wish to sell and are in search of as large a market as possible. Some are already in a position of power and are seeking to sustain or strengthen it; they have a "corner" on some particular market and are called "vested interests." Others are seeking

[1] Cf. Graham Wallas, social judgment (New York: Harcourt, Brace and Company, 1935).

to wrest power from the vested interests, and if successful to become in turn vested interests themselves. Both realize that to enjoy power they must have the support of public opinion; or, at least, public opinion must not be unfavorable toward them. When he was told there would be a public reaction against some of the practices he was using to build up his great railroad empire, Commodore Vanderbilt was quoted as saying, "The public be damned!" Whether or not he actually did say this, he was shrewd enough to deny it instantly.

Since Commodore Vanderbilt's time, captains of industry have learned not only to respect public opinion but to control it. An outstanding example of a long-term public relations program is that of the American Telephone and Telegraph Company.[1] In 1935 the parent company and subsidiaries had 398 public relations experts on their payrolls, and spent for advertising in magazines and newspapers alone the sum of $5,138,000.[2] The purposes of this campaign are primarily to increase the volume of business done by the company and to maintain the monopolistic benefits already possessed. To attain these ends, a central idea is held constantly before the public: that the company is a public service operated in the best interests of the public. To create a sympathetic and uncritical attitude toward the company, the service is identified with values or symbols that have favorable sentimental significance for the masses of the population, such as courage and the home. The inner workings of the system are revealed; the hazardous operations of the linesmen, and the impression is given that the company is a vital protector of life and property. The telephone is shown as a device linking those away on business and their loved ones at home. Played up, too, is the fact that the company stock is owned by hundreds of thousands of investors, creating the illusion that the company is, after all, a publicly owned enterprise. The Federal Communications Commission, after investigating these practices, concluded they were designed to "lull the public into a satisfied and sympathetic frame of mind."[3] The American Telephone and Telegraph Company is not alone, however, in its quest for public support. Almost every large corporation now has on its

[1] PROFESSOR NORTON E. LONG of Harvard University refers to this program as "a classical example of methods arrived at over a long period of years not untypical of those utilized or about to be utilized by large-scale business in general." ("PUBLIC RELATION POLICIES OF THE BELL SYSTEM," PUBLIC OPINION QUARTERLY, I (4):5–23, October, 1937.)

[2] BRONSON BATCHELOR, PROFITABLE PUBLIC RELATIONS (New York: Harper and Brothers, 1938), p. 216.

[3] Special Investigation Docket no. 1, vol. IV, June 15, 1937.

payroll individuals whose business it is to create public good will toward the management, its policies, or its products.

PRESSURE GROUPS

Most publics are organized on an opinion basis; that is, they are concerned with the discussion and determination of issues. When, however, a public moves from opinion to action, in an effort to make its will effective, and particularly to secure legislation favorable to its own interests, it may be designated a pressure group. Our own society is characterized by a great number of such pressure groups, each seeking to gain some sort of advantage by securing the support of those who have power, as for instance the voters or their elected representatives. Hundreds of organizations such as the National League of Women Voters, the American Legion, the Chamber of Commerce of the United States, and the American Federation of Labor, maintain permanent offices in Washington, D.C., and agents in the various state capitals whenever required, for the purpose of applying pressure to gain their special ends. These agencies are often engaged in a political tug-of-war, with the outcome greatly affected by the relative power and strength of organization of the competing groups. Publics that are unorganized or poorly organized, and therefore lacking in influence, like the public of unskilled workers and the consuming public, are at a great disadvantage in protecting their interests.

An interesting illustration of an outstanding pressure group in American experience is the Anti-Saloon League,[1] begun in 1895 by 49 different temperance and religious groups as a national organization with paid professional workers agitating for the abolition of the liquor traffic. At first the League appealed to the individual to abstain from alcoholic drink and called for the signing of a pledge to this effect. Later, the drive against the saloon was started, and finally came the movement for national prohibition. The national organization tied up with state and local committees operating through churches and other established agencies such as the Women's Christian Temperance Union and the Civic League. It is estimated that the League at its height had the support of about 60,000 agencies. Committees of voters were formed in the manner of machine politics; states were marked off into districts, districts organized by counties, and counties by wards, precincts, or

[1] PETER ODEGARD, PRESSURE POLITICS: THE STORY OF THE ANTI-SALOON LEAGUE.

townships. A paid superintendent was provided for each district and a paid manager for each county, the other units being served by volunteer captains and lieutenants. Odegard characterizes the organization as a "politico-ecclesiastical machine."

The functions of the League consisted in promotional activities, largely of a propagandistic nature, and in direct political pressure. In connection with the former, the League established in 1909 a printing plant of its own, the American Issue Publishing Company, at Westerville, Ohio, which, by 1912, had eight presses printing more than 40 tons of temperance literature, including 31 state editions of the American Issue, with a total monthly circulation of more than 500,000. From the time the plant was established up to January, 1923, it produced 157,314,642 copies of temperance papers. In addition, there were released about two million books, five million pamphlets, 114 million leaflets, two million window cards, and 18 million other cards. "The liquor business was drowned in a flood of temperance literature."

As for the method of direct political pressure, the League put up no candidates of its own but instead supported those of the established parties who were favorable to its policies. The objective was to hold the balance of power and thus force the major parties to approve the League's policies. Candidates for office were canvassed, their attitudes determined, and, if favorable, pledges were secured and the information recorded at headquarters. Copies of this information were then sent to the voters, and an effort made to obtain signed pledges from the voters to support the local option or anti-liquor candidates. Once the legislature had been elected, the League set to work to secure favorable legislation. Various methods were used, typical of lobbying in general but more than usually successful because of the power of the League.

In 1899, offices were opened in a building just across the street from the national capitol, and agents were in constant touch with legislative matters affecting the League. Information from the League's point of view was furnished congressmen, agents attended legislative hearings, and in many cases drafted and introduced bills. The weapon the League wielded over recalcitrant representatives was the threat of defeat at the next election.

That the League was effective can scarcely be denied. An account of the temperance legislation passed by Congress in which the League had a hand would fill a large volume, to say nothing of victories achieved in the separate states. But besides the two outstanding victories of the

prohibition of interstate shipment of liquor into dry states in 1913, and the Eighteenth Amendment, the League was instrumental in securing the following national legislation: 1902, saloon substitutes at army posts; 1903, prohibition of sale of intoxicating liquor at immigration stations; 1906, Soldiers' Home Canteen Law; 1906, Prohibition enforcement in Indian Territory; 1908, Anti-liquor code for Alaska; 1909, prohibition of the use of the mails for transportation of liquor.

PROPAGANDA

As suggested above, the League had also an extensive promotional program, largely propagandistic in nature. For instance, the saloon was pictured as the enemy of the child and the home; as the source of all crime, degeneracy and poverty; indeed, as the epitome of all that was vicious in society. The League exploited the recruiting of youth by saloons, publishing widely such advertisements as the following: [1]

> WANTED: BOYS FOR CUSTOMERS
>
> Most of our old customers are rapidly dropping out.
> Ten committed suicide last week.
> Twenty are in jail — eight in the chain gang.
> Fifteen were sent to the poorhouse. One was hanged.
> Three were sent to the insane asylum.
> Most of the rest are not worth fooling with; they have no money.
>
> WE NEED FRESH YOUNG BLOOD

Nature of propaganda. Because one is bombarded on all sides by propaganda in our day, it is desirable to understand what propaganda is and how it operates. It consists of symbolic influences which are exerted upon us to make us think or act in a particular way. Propaganda operates on the principle of the ideo-motor suggestibility of persons, the inclination to follow out more or less automatically the suggestions that are given. The propagandist has certain interests he wishes to promote; he can promote them if he secures our support. He knows this and very deliberately sets out to influence us. Propaganda is thus consciously

[1] AMERICAN ISSUE (Ohio edition), January 11, 1908.

directed; it may sometimes have unintended consequences, but it is always deliberate.

When we are critical about an issue, we consider the pros and cons of the situation. Suggestions are balanced by counter-suggestions, as we weigh all the evidence. In order to get us to follow a particular set of suggestions automatically, it is important for the propagandist to keep out all suggestions that run counter to his own. Only one side of the story must be presented, the side we are to accept. For example, the Anti-Saloon League must not admit that there are any benefits whatsoever accruing from the use of liquor. It must not entertain the suggestion that the use of alcohol in moderation may be desirable. Likewise the public utilities in their propaganda point out only the undesirable aspects of government ownership and the desirable aspects of private management. Propaganda is thus special pleading.

Moreover, the propagandist, like the puppeteer, generally works out of sight, so we are influenced without knowing it. While this was not true of the Anti-Saloon League, it is generally the case. A number of years ago, for instance, an investigation [1] brought to light the pervasive propaganda which the public utility interests in the United States had been carrying on for many years. It was found that these interests had succeeded in incorporating into the textbooks of the public schools certain material which gave a very favorable view of private ownership and a very unfavorable view of government ownership. A similar point of view was emphasized in college textbooks in economics. Few students reading this material would ever suspect that they were being victimized unconsciously. Propaganda, then, may be defined as the conscious promotion of emotional attitudes on one side of controversial subjects, usually by indirect means.[2]

Propaganda techniques. Since propaganda is a symbolic process involving conversion by suggestion rather than by such methods as violence, bribery, or boycott, the techniques of propaganda revolve

[1] The story of the propaganda campaign of the electric utilities is told in a report by the Federal Trade Commission (Senate Document 92, 70th Congress, 1st Session), which runs to about 100 volumes. A summary of the testimony given in the first four years of the hearings appears in CARL D. THOMPSON, CONFESSIONS OF THE POWER TRUST (New York: E. P. Dutton and Company, 1932). See especially chap. XXXIX, "Revising the Textbooks," and chap. XL, "Our New School Books." "Besides the pamphlets above referred to, which were prepared especially for use in the high schools, grade schools, and to a greater or less extent for general distribution, the utilities were also diligent in the preparation of textbooks of a more advanced and technical nature for use in colleges, universities, and technical schools." (*Ibid.*, p. 384.)

[2] H. D. LASSWELL, R. D. CASEY, and B. L. SMITH, PROPAGANDA AND PROMOTIONAL ACTIVITIES. An annotated bibliography. (Minneapolis: University of Minnesota Press, 1935.)

The Hearst *Post-Intelligencer* (Seattle)

NO COERCION OF WORKERS, ULTIMATUM

Protection For Workers Guaranteed By Governor

Guard Routs Tacoma Red

TROOPS CALLED TO HALT
MILL STRIKE RIOTS

First Fighting Breaks Out As Mills Reopen

Tacoma Riots Flare; Martial Law Deferred

Violence To End, Says Magnusson

The Voice of Action

STRIKE REMAINS SOLID

Governors Threaten Terror As Rank, File
Take Strike Control

N. W. Strike Committee Asks Labor
Support Against Terror

Troops Fail To Break Strikers' Militancy

Tacoma Sawmill Union Demands General Strike Vote

N. W. Lumber Workers Win Many Gains In Big Strike

FIGURE 41. HEADLINES OF A METROPOLITAN DAILY NEWSPAPER AND A RADICAL LABOR WEEKLY DURING THE PACIFIC NORTHWEST LUMBER STRIKE OF 1935

One would hardly guess from the headlines of the metropolitan daily that the strike ended in a labor victory. Out of a total of 450 strike items studied by impartial investigators, only 20 were found to have been reported in both the daily and the labor press with close agreement as to facts. (SELDEN C. MENEFEE, "AN EXPERIMENTAL STUDY OF STRIKE PROPAGANDA," SOCIAL FORCES, *16:574–82; 1937–38.*)

around the manipulation of symbols. The subject is exceedingly complex and to list all the techniques would require a manual, but it is possible here to cite briefly a few of the fundamental methods by which the propagandist manipulates attitudes. First, repetition is essential. "If you have an idea to put over, keep presenting it incessantly. Keep talking (or printing) systematically and persistently." [1]

Second, stack your cards. Do not admit, do not even suggest, that there is any side to the question but the one you represent. This means that you must distort the evidence. The Anti-Saloon League claimed that between 60 per cent and 100 per cent of all divorce was due to liquor, when as a matter of fact drinking is a relatively minor cause of marital infelicity, in many cases being merely the result of more deep-seated troubles. The public utilities compared the costs of electric power furnished by some of the most favorable privately-owned plants with some of the poorest municipally-owned ones. Not mentioned was the fact that one large community in Florida regularly earned a large enough surplus from the sale of power to its citizens to be able to exempt them from property taxes.

Third, cast your cause in the rôle of the hero, and your opposition in the rôle of the villain. Resort to generalities, emotionalized symbols, and stereotypes to build up affection for your hero and hatred toward the enemy. The Anti-Saloon League linked God to their cause and Satan to the saloon. The public utilities called all those who questioned the desirability of private ownership "Socialists," "Communists," "Reds."

Fourth, produce testimonials in behalf of your cause, supplied by persons whose names carry a great deal of weight. This brings prestige suggestion into play.

Fifth, "For the most permanent eventual results, aim your propaganda at the children; mix it in your pedagogy." [2] The totalitarian states furnish excellent examples of the application of this principle.

Propaganda has in modern times been lifted from its long-established place as a minor factor in social life to a new position as a major social force. This growth has been made possible by the growth of the sciences of human relations, providing new knowledge of how to manipulate human beings; by the amazing development of communication facilities in modern times, including the telegraph, the oceanic cable, the tele-

[1] KNIGHT DUNLAP, CIVILIZED LIFE (Baltimore: Williams and Wilkins, 1934), pp. 360–61.

[2] KNIGHT DUNLAP, *op. cit.*

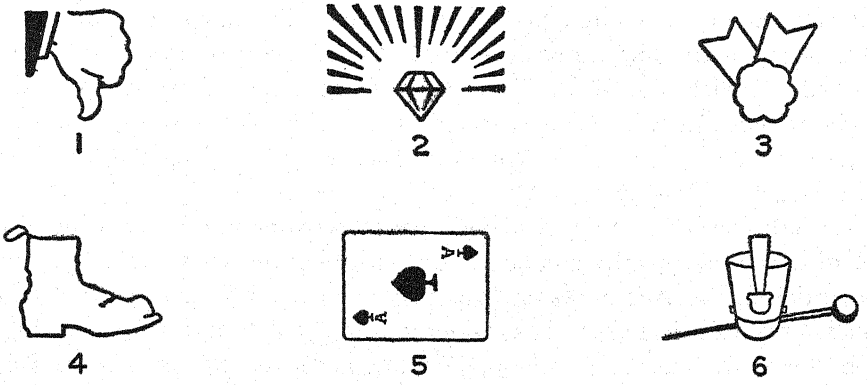


FIGURE 42. SOME COMMON PROPAGANDA DEVICES AND THEIR SYMBOLS

(1) Name calling — giving an idea a bad label — is used to make us reject and condemn the idea without examining the evidence. Symbolized by the ancient sign of condemnation used by the Vestal Virgins in the Roman Coliseum, a thumb turned down.

(2) Glittering generality — associating an idea with a "virtue" word — is used to make us accept and approve the idea without examining the evidence. Symbolized by a glittering gem that may or may not have much intrinsic value.

(3) Testimonial — having some loved or hated person approve or condemn a given idea. Symbolized by a seal and ribbons, the "stamp of authority."

(4) Plain folks — attempting to convince one's public that one's ideas are good because they are those "of the people." Symbolized by the traditional analogue for an old friend, an old shoe.

(5) Card stacking — the use of only such highly selected material, whether true or false, as supports one's case. Symbolized by the ace of spades, the card traditionally used to signify treachery.

(6) Band wagon — "Everybody's doing it," with the implication that we must therefore follow the crowd and "jump on the band wagon." Symbolized by a bandmaster's hat and baton, used on old-fashioned band wagons.

Symbols and descriptions adapted from the INSTITUTE FOR PROPAGANDA ANALYSIS, THE FINE ART OF PROPAGANDA *(New York: Harcourt, Brace and Company, 1939), pp. 23–24. With permission.*

phone, the radio, the motion picture, facsimile transmission, teletype, the multigraph machine, rotary printing presses; by the highly efficient control and organization of the propaganda machinery now possible; and by the proliferation of interest groups in our time. Particularly in the totalitarian states do we see propaganda agencies established as vital adjuncts of the government, on equal terms with the other major departments of the state.

Propaganda in wartime. Propaganda is perhaps seen at its best in wartimes, when even democratic states make it a major function. This can be shown in connection with the promotion of America's entrance into World War I, and her subsequent participation in the conflict. Previous to American participation in the war, a strong sentiment had

developed in the United States against becoming involved in it. For example, in the late autumn of 1914, 367 newspaper proprietors were asked: "Which side of the European struggle has your sympathies?" The replies of 242, or almost exactly two thirds of the group, expressed no particular preference.[1] Woodrow Wilson was re-elected in 1916 on the slogan: "He kept us out of war."

A number of factors, however, were instrumental in drawing the United States into the conflict. Among the underlying causes may be mentioned the Anglo-Saxon basis of American civilization, which led quite naturally in time to increasing sympathy for the British rather than the German cause; the widespread indignation at the invasion of Belgium; the enormous stake of the financial interests in an Allied victory; shocking episodes, such as the sinking of the *Lusitania* and the threat of unrestricted submarine warfare; and the fear that if Germany won the war the United States would be invaded. But not to be discounted is the rôle of British propaganda from 1914 to 1917, when we finally entered. There is abundant evidence to show that during these three years the British were exceedingly busy creating a favorable public opinion by very devious means.[2]

The Germans undertook a propaganda campaign, too, but their direct, open, obvious methods caused them to blunder badly and perhaps led them to do more harm than good to their cause. The British were far more subtle. They would not even admit that such a thing as British propaganda existed in the United States. Sir Gilbert Parker, upon being put in charge of the work, had a careful analysis made of American press opinion, and an equally thorough investigation of opinion in the colleges and universities. On the basis of these studies and a careful selection from *Who's Who*, a mailing list was prepared of thousands of persons to whom the propaganda was sent. The literature was always sent out with a personal card, with never any indication of official sponsorship, giving the impression that here was a prosperous, kindly, social-minded Englishman who wanted to do his duty by his American friends. Whenever literature written by Americans was available, it was utilized. The British resorted not to violent wooing as the Germans had done but to gentle, personal appeals.

With war finally declared against Germany, it was necessary to build

[1] LITERARY DIGEST, 49:939, November 14, 1914.

[2] J. D. SQUIRES, BRITISH PROPAGANDA AT HOME AND IN THE UNITED STATES FROM 1914 TO 1917 (Cambridge: Harvard University Press, 1935).



FIGURE 43. TYPE OF PROPAGANDA USED IN AMERICA IN 1917

up a solid favorable public opinion toward the war. An agency, called the Committee on Public Information, was established by our government. The Committee set out to build up love and hate attitudes; love toward the Allies and hate for the Germans.[1] These goals were achieved by the constant use of emotionalized words and symbols. The Germans were called "Huns," and the Kaiser was "the mad dog." The usual atrocity stories were circulated. We were told that the Germans were entirely responsible for the war. On our side there was nothing but great virtue; we were fighting "to make the world safe for democracy."

Some idea of the barrage of propaganda that was laid down at home

[1] H. D. LASSWELL, PROPAGANDA TECHNIQUE IN THE WORLD WAR.

by this Committee can be obtained from the report which the chairman later published. In addition to supplying the already existing newspapers and magazines with a stream of copy, a daily newspaper was set up for official use. More than thirty booklets in several languages were published, and more than seventy-five million copies distributed throughout the country. About 200,000 stereopticon slides were sent out. A corps of 75,000 speakers in 5200 communities made 755,190 speeches.[1]

In World War II, an Office of War Information was established with a program that dwarfed that of Dr. Creel's Committee of the First World War. For just the single year, 1945, the budget called for 64 million dollars. The bulk of this money (more than 95 per cent) was spent for psychological warfare, i.e., propaganda in enemy, occupied, and neutral countries through the Overseas Branch of the O.W.I., and only relatively small amounts were spent by the Domestic Branch for propaganda at home. In World War II, because of the Japanese attack at Pearl Harbor and the aggressions of the Nazis, the American people needed less persuasion as to the need for their participation in the war and the Domestic Branch of the O.W.I. became "principally a staff operation, responsible for the effective organization and coordination of other activities, both governmental and private."[2]

Conversion of publics into crowds. Publics are marked by rationality, but under the influence of propaganda, publics may readily become as emotional as crowds. Indeed, when an interest group abandons processes of deliberation and discussion and gives way to emotion, it ceases to be a public and becomes a crowd. In the graphic words of Mark Twain,[3] this is the way war hysteria develops:

> The loud little handful — as usual — will shout for the war. The pulpit will, warily and cautiously, object — at first; the great, big, dull bulk of the nation will rub its sleepy eyes and try to make out why there should be a war, and will say, earnestly and indignantly, "It is unjust and dishonorable, and there is no necessity for it."
>
> Then the handful will shout louder. A few fair men on the other side

[1] GEORGE CREEL, HOW WE ADVERTISED AMERICA (New York: Harper and Brothers, 1920).

[2] HEARINGS (BEFORE THE SUBCOMMITTEE OF THE COMMITTEE ON APPROPRIATIONS, HOUSE OF REPRESENTATIVES, SEVENTY-EIGHTH CONGRESS, SECOND SESSION) ON THE NATIONAL WAR AGENCIES APPROPRIATION BILL FOR 1945. Part 2. (Washington: Government Printing Office, 1944.)

[3] MARK TWAIN, THE MYSTERIOUS STRANGER. Cited in THE NEW REPUBLIC, 84:259, October 16, 1935. Reprinted by permission of Harper and Brothers.

will argue and reason against the war with speech and pen, and at first will have a hearing and be applauded; but it will not last long; those others will outshout them, and presently the anti-war audiences will thin out and lose popularity.

Before long you will see this curious thing: the speakers stoned from the platform and free speech strangled by the hordes of furious men who in their secret hearts are still at one with those stoned speakers — as earlier — but do not dare to say so.

And now the whole nation — pulpit and all — will take up the war cry, and shout itself hoarse, and mob any honest man who ventures to open his mouth; and presently such mouths will cease to open.

Next the statesmen will invent cheap lies, putting the blame upon the nation that is attacked, and every man will be glad of those conscience-soothing falsities, and will diligently study them; and refuse to examine any refutations of them; and thus he will by and by convince himself that the war is just, and will thank God for the better sleep he enjoys after this process of grotesque self-deception.

Limits to propaganda. Propaganda seems to work like magic in promoting patriotism, in stirring up enthusiasm for war, in multiplying customers for various commercial products. Advertisers make all sorts of preposterous claims for their products and get volume business as a result. The public is told that cigarettes are a source of energy and that one is sure to lose one's sweetheart unless one uses a special brand of mouthwash. A manufacturer of a well-known brand of yeast advertises one month that his product will give you energy for that evening of bridge and the next month that it will relax you so you can sleep soundly.

Nearly all advertising is labeled as advertising and there is no difficulty in knowing that it is advertising. In this sense it differs from propaganda, which is not so clearly signalized. Thus when an English scientist comes over to America to comment on social problems it is not always clear that he is supported by British propaganda funds. Both advertising and propaganda, of course, try to persuade the individual and neither presents both sides adequately. But the payment aspect of advertising is obvious, whereas it is more frequently under cover in propaganda, and readers are less able to discriminate between what is fact and what is fancy.

Propagandists boast that they can get people to believe that white is black and black white. Are there no limits to what they can accomplish? The evidence would rather tend to show that such claims of propagandists are excessive and that there are limits to what can be done.

The effectiveness of propaganda is, for instance, definitely limited by a knowledge of the facts in the case and enhanced by ignorance of them. Propaganda flourishes where there is ignorance.

At the University of Iowa, in an experiment,[1] 203 students were exposed to propaganda concerning Mr. W. Morris Hughes, Prime Minister of Australia from 1915 to 1923. An Information Check Test given at the outset showed that the students knew nothing about him. Planted editorials were then substituted without the students' knowledge for editorials of the same length appearing in current issues of the student daily newspaper. Thirty editorials were constructed, one half favorable to Mr. Hughes, and the other half unfavorable. Of the subjects reading favorable editorials, 98 per cent became favorably biased toward Mr. Hughes, while 86 per cent of the subjects reading unfavorable editorials became adversely biased. It is safe to say that no such extensive conversions would have taken place if the students had known about Mr. Hughes and his administration. Hence, it follows that knowledge of the facts about society learned by the student of sociology serves somewhat as a breakwater against the waves of propaganda on social questions that beat against him.

Readers of Consumers' Research and Consumers Union Reports, which give careful, objective appraisals of consumers' goods, are doubtless not so easily taken in by what they read in the advertisements as are people who do not have access to such information. When an opera singer says a particular brand of cigarettes is easy on his throat, it is doubtful if many readers are persuaded; it is generally known that he is well paid for his testimonial and that smoking is scarcely recommended for those who, like singers, have a special need to maintain delicate control over breathing. If listeners buy the product, it is probably not because they believe the advertising copy but rather that they are persuaded to support their radio favorite whom the manufacturers are sponsoring or because they already smoke and attach little significance to changing brands.

This discussion leads directly to a second point, that the effectiveness of propaganda is limited by prevailing interests, prejudices, and social trends. Propaganda is a good deal more likely to succeed when it flows with the current than against it; and doubtless propaganda is often given credit for results that would have come about in any case from the opera-

[1] A. D. Annis and N. C. Meier, "The induction of opinion through suggestion by means of planted content," Journal of social psychology, 5:65–81, February, 1934.

tion of larger social forces. Thus, many American historians believe that slavery was on its way out because it was ill-adapted to the newly evolving industrial society, and would have disappeared without benefit of William Lloyd Garrison and *Uncle Tom's Cabin*, although these no doubt hastened the process.[1]

Strong propaganda may prevail for a time against current social trends, but it is doubtful if it can maintain this advantage for long. An illuminating example is the experience of the Anti-Saloon League in its campaign against liquor. The drys prevailed at first partly because of their strenuous, persistent crusade and partly because they were supported by favorable social situations, such as the generally recognized menace of the saloon; the need for conserving food resources during the war, so that the use of foodstuffs in manufacturing liquor was decried; and the union of the liquor traffic with German interests. We cannot say that national prohibition would have come without the Anti-Saloon League, but certainly the social situation was favorable too.

More important, however, is the fact that the Prohibition Amendment was later repealed; and only partly on account of the efforts of the Committee Against the Eighteenth Amendment. Prohibition was abolished because it brought in organized racketeering and bootlegging; its administration proved to be exceedingly expensive and ineffective; and it helped to generate widespread disrespect for law. There were many other reasons why prohibition failed, but the heart of the matter is that it ran counter to modern trends; it is impossible to regulate personal habits successfully by law in a complex, rapidly changing, urban civilization.

Finally, it may be pointed out that propaganda is definitely limited by counter-propaganda. Or, to put it positively, the effectiveness of propaganda depends upon how clear a field it enjoys. Propaganda in the dictatorships is so largely successful because the state brooks no opposition. There is only one real propaganda agency, and that is managed by the government. For instance, important suggestions released by

[1] Another illustration is Allied propaganda, which is credited with breaking German morale in 1918. British shells carried leaflets ten miles behind the enemy lines. During each week of 1918, more than 2000 propaganda balloons were released, each carrying 1000 leaflets. In October, 1918, 5,360,000 leaflets were dropped in Germany. (G. S. VIERECK, SPREADING GERMS OF HATE, New York: H. Liveright Company, 1930, p. 205.) But Bruntz has shown that there were other, more important factors operating on German morale at the time. The civilian morale corresponded a good deal more closely to German military successes and failures and the stress of the food shortage. (G. G. BRUNTZ, "ALLIED PROPAGANDA AND THE COLLAPSE OF GERMAN MORALE IN 1918," PUBLIC OPINION QUARTERLY, 2:1:64–65, January, 1938.)

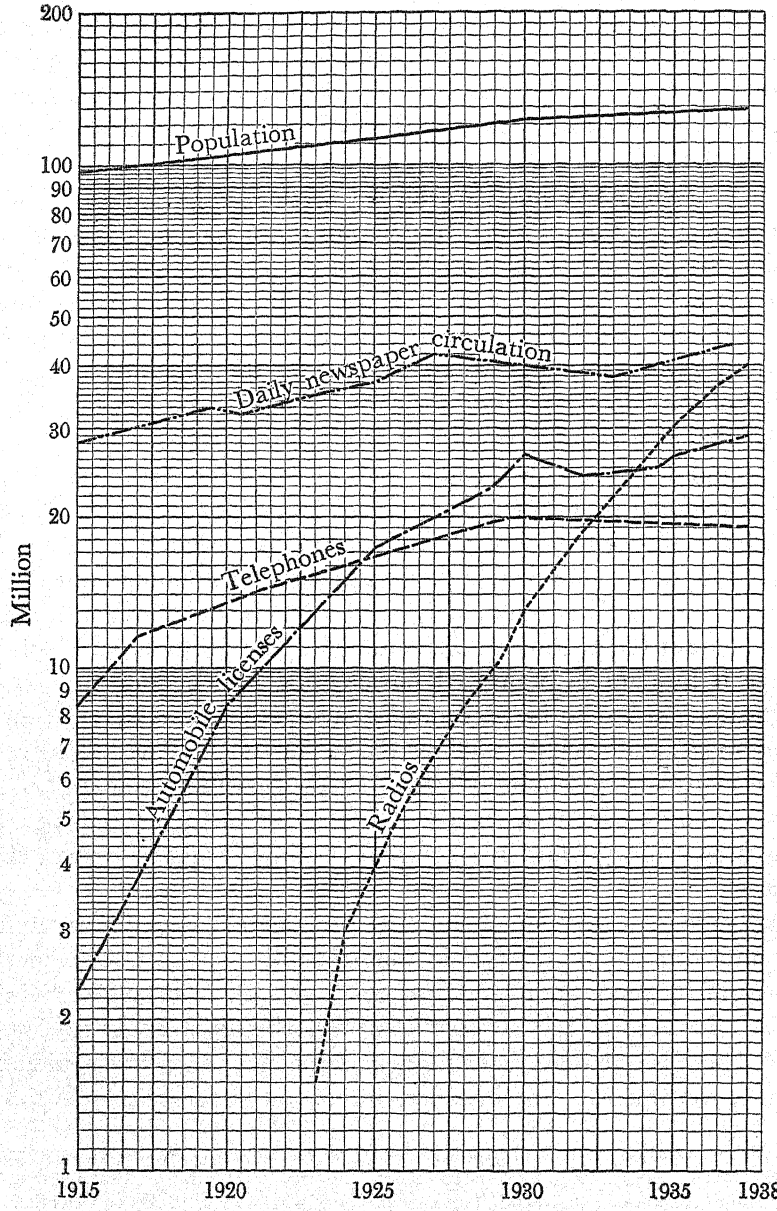


FIGURE 44. USE OF TRANSPORTATION AND COMMUNICATION INVENTIONS

The spread of the transportation and communication inventions has been so tremendous in its effect that they are said to have initiated a second industrial revolution.

the press in Fascist lands are not offset by counter-suggestions from other sources within the country.

In a democratic country like the United States, however, the political public may be exposed to divergent suggestions and so have a chance of checking them against one another. During the presidential contest of 1936, the press of the country was largely lined up against President Roosevelt in his attempt to win a second term. The newspapers for the most part were in the hands of interests hostile to him and his policies. They unloosed a great torrent of propaganda against him. If his supporters had had access to no other means of reaching the public, the majority public opinion might have been different from what it later proved to be.[1] But as President of the United States, Mr. Roosevelt had special access to the radio, an advantage which he strongly capitalized. In addition, he could bring his arguments directly to the people by means of a personal tour around the country. In this case, therefore, the public had the opportunity of comparing two rival sets of propaganda, and the effectiveness of the one was limited by the appeal of the other. But while there are limits to propaganda there are also dangers. The marvelous new communication inventions, such as printing, radio, television, and facsimile transmitting devices, make excellent opportunities for the propagandists. These inventions can, of course, be used for counter-propaganda, though they may not be so used.

[1] In the fifteen largest cities of the United States, newspapers controlling approximately 70 per cent of the total circulation were hostile to Franklin D. Roosevelt, whereas he received 69 per cent of the total vote. "THE PRESS AND THE PUBLIC," THE NEW REPUBLIC, 90:178–91, March 17, 1937.

SUMMARY

Two types of group formation prominent in our society are the crowd and the public. The members of a crowd share an emotional interest of a passing character. Although emotion is of genetic origin, it is greatly heightened by the group through the power of suggestion. Suggestion is particularly effective in congenial crowds because of the prestige of numbers and the repetitive and rhythmic nature of the stimuli.

Although man is by nature emotional, society demands that his emotions be kept in check most of the time. Culture does, however, provide certain crowd occasions such as athletic contests for letting off steam. The crowd as such cannot, therefore, be regarded as a pathological phenomenon. However, other occasions for crowd behavior are taken which society may not approve, such as lynching. In such a case, the size and solidarity of the crowd causes the individuals to feel no sense of individual responsibility. The excesses of certain crowds are thus explained. When the crowd gets out of hand and swings into action, it is better described as a mob.

Although crowds and mobs arise naturally, the patterns they assume and the frequency with which they form vary greatly with the culture. The English do not, for example, approve crowd emotion in the same way as, say, the French. A community of Quakers probably will show fewer crowds than a community of Holy Rollers. There is evidence, too, to show that education makes individuals somewhat less susceptible to crowd conduct. It is easy, however, to exaggerate the importance of education along this line.

When a group of individuals shares a more abiding interest than that which holds a crowd together, they constitute a public. In our society there are numerous publics, since there are numerous common interests because of the rapidity of modern cultural change. The members of a public do not, however, always see eye-to-eye on various questions concerning their common interest. The discussion of issues is thus characteristic of publics, and the consequent crystallization of differences of viewpoint is public opinion.

If public opinion is to be rational, it is necessary that both sides of an issue be presented and discussed. There are in our society, however,

numerous organized groups with axes to grind, or causes to promote, or vested interests to maintain. In order to obtain public support for their private purposes, they resort to propaganda. By the repeated use of subtle suggestion they may bring the public under their sway, much as in the case of hypnosis. It is important for the reader to observe that by means of propaganda large sections of the public may be induced to behave in ways which are actually contrary to their own interests.

Since society is made up of special interest groups, each of which is intent on having its way, propaganda is inevitable. Even so, public opinion may still be deliberative and rational. This is possible if the competing interest groups are not too unequal in strength. In such a case the public has the opportunity of checking one body of propaganda against the other. The situation is not, however, always so fortunate. Sometimes an organized group is unopposed, or at best only feebly opposed. Such is plainly the case in a dictatorship, where the will of a relatively few members of the dominant party prevails. Less plainly, but just as truly, the same thing may happen in a democracy, when vested interests become all-powerful, or when the leadership brooks no opposition, as in times of war.

QUESTIONS FOR DISCUSSION

1. How can you show that crowd behavior is a natural group phenomenon?
2. What is suggestibility? Are individuals in a crowd more suggestible than when apart from one? Why?
3. Are educated people less suggestible than those who are not educated? Support your position.
4. How is crowd behavior influenced by the cultural situation? Are crowds found in all cultures?
5. In what respects does a public differ from a crowd?
6. How may publics, under the influence of propaganda, become irrational crowds? Illustrate.
7. What are pressure groups? Why are they so numerous in our time?
8. What are some common techniques of influencing public opinion? How can we build up "sales resistance"?

9. How would you distinguish propaganda from education? Cite examples of each.
10. Under what conditions is propaganda most effective? Least effective?
11. Is the boast of propagandists that they can make us believe black is white, and white black, a valid one? Are there limits to the power of propaganda?

TOPICS FOR REPORTS

1. An analysis of an instance of crowd behavior on a college campus.
2. A survey of important issues on a college campus.
3. Scientific and unscientific methods of sampling public opinion.
4. A study of the work of an outstanding public relations counsel.
5. The work of the Institute for Propaganda Analysis.
6. Propaganda in present-day secondary school textbooks.
7. Public opinion management in a present-day totalitarian state.

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A clear, brief discussion of the bases, characteristic mechanisms, and forms of collective behavior.

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The most comprehensive book to date on the principles, types, and techniques of propaganda.

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An early classic on the social psychology of crowds. Valuable for its brilliant descriptions and classifications of the psychological crowd rather than for its interpretations.

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A vivid account of the activities of the Anti-Saloon League. Valuable as a picture of the functioning of a major pressure group.

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An admirable selection of readings on various phases of collective behavior.

XI. STATUS: SOCIAL CLASSES

THERE IS a group of mixed bloods in a mountain pocket in Virginia in which the predominating strains are white and Indian, with a sprinkling of Negroid. The Negroes have been almost eliminated. But at the opening of school one autumn a child with kinky hair and dark skin appeared among the pupils. Gradually the other children dropped out until finally there was no one but the Negro left in the school. These Southern families would rather deny their children the value of education than cause them to lose status by associating with a Negro. The aristocratic classes in many countries, where work is considered to be menial, would rather be poor than risk the loss of status that would result from going to work. Some years ago society in Washington was thrown into a turmoil by the question as to who should have precedence in the seating at the dinner table, the sister of the Vice-president or the wife of the Speaker of the House. These illustrations show how acutely humanity feels about rank and position.

SOCIAL STATUS

Because status [1] is so dear to the hearts of most of us, it is worth inquiring what status is, how it is acquired, and how different groups, namely social classes, vary in respect to it. These are some of the more fundamental matters to be considered in this chapter.

THE NATURE OF STATUS

The simplest definition of status is that it represents the position of the individual in the group. The term suggests, on the one hand, the idea of rank. A person's status is his group standing, or ranking in relation to the others. Thus we say that a person has a high or low status in the group, that he is a leader or a follower. On the other hand, status also conveys the idea of formalized behavior of some sort. The leader makes

[1] We value status so highly because we are sensitive to the opinions of others and seek approval and recognition from them. The causes of our sensitivity to the opinions of others were considered in Chapter VI, "Group and Personality."



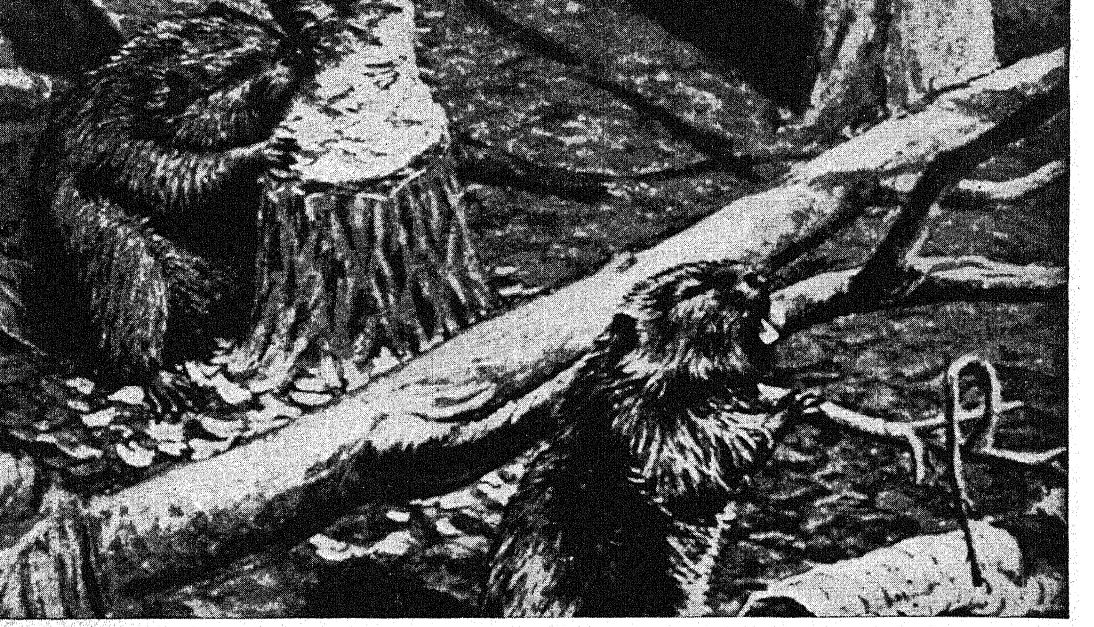
Ewing Galloway



Wide World

PLATE 5. ASSOCIATION AND SEPARATION OF SOCIAL CLASSES

In America many kinds of recreation are attended by members of different classes, as the moving pictures and ball games. Thus the segregation in many walks of life is not as complete here as it is in many countries, except for the Negroes. In the case of the Metropolitan Opera the segregation is accomplished by size of contributions and price of tickets.



Keystone

PLATE 6. CO-OPERATION AMONG THE BEAVERS

Many of the lower animals have elaborate patterns of co-operation, which are either learned or acquired through the instinct mechanism. It was once thought that the law of life in the lower animals was a bitter struggle of the individuals against one another for survival. Nature was red in tooth and claw. But investigation has found that there are about as many examples of co-operation among animals as of fighting.



Acme

PLATE 7. COMPETITION MAY BE VERY KEEN

plans, issues orders, and sees that they are carried out. He has certain functions to perform, a definite rôle to play. Behavior associated with a particular status is called by the sociologist a rôle. A person's rôle in the group is the dynamic aspect of his status.

Since status is position in a group, a person has as many statuses as he has group affiliations. Even exempting the more casual groups and considering only the more established and significant affiliations, a person generally has a number of different statuses and they may differ not a little. For example, Mr. Smith has status as a male, an adult, a husband, and a father. He is quite the patriarch and is so regarded by his family. Mr. Smith also has status in the local Baptist church, of which he is a member, but in which he holds no office and plays no distinctive rôle. Mr. Smith has status, too, in his occupational group. He has been an assistant professor in a small college for more than fifteen years, with little hope of advancement, perhaps because he is regarded by his students and colleagues alike as a poor teacher. It is generally felt that he continues to hold his position only because his family has long been associated with the college in one official capacity or another. The Smiths have ample private means, belong to the best clubs and move in the best circles.

The term status is used in the singular, suggesting that status may be generalized, that the status of a person is the sum total of all his separate statuses. It is doubtful, however, if this conception is valid. It is difficult to see how statuses can be added up, any more than two apples and two oranges can be added. When we speak about a man's social status, we ordinarily make not a generalization but a selection. We have in mind one status in particular: his social class status. We consider the clubs to which he belongs, the size of his fortune, the circles in which he moves. In thinking of Princess Elizabeth of England, for instance, we pay little attention to her status as a youth, or as a female, or as a pupil, but are concerned chiefly with her status as a member of royalty. In much the same way, when we talk about Mr. Smith's status, we pass over his neutral status in the church and his inferior status as a teacher and dwell largely on his status in the social set.

Class status seems to overshadow all other kinds of status. Most people in our culture would prefer to be identified with the upper class, because it is correlated with a high standard of living and with social acceptability. But a scientist, let us say, might care a great deal more about his status as a research worker, or a scholar about his reputation

in his profession. And it is of course possible for a man to have a great reputation as a scientist or scholar, but not, for reasons such as race or poverty, be included in the social register.

The special social significance of formalized status. From the standpoint of society, the more significant statuses are the formalized ones. The group as a whole is vastly more concerned about the business of everyday living and the rôles that must be played than it is about who fills these rôles. Society is, then, less interested in the individual than in the position which he occupies. For one reason or another, people are assorted into various categories which determine the rôles they are to play in the group. This assorting process, called social differentiation, goes on in all societies. Women as a class have a status distinct from that of men, and children have a status unlike that of adults. Many of these formalized, generalized statuses are assigned at birth, on the basis of biological factors. The latter are visible and identifiable, hence serve as a definite basis for the ascription of status. The importance of making an immediate assignment of status lies in the fact that the everyday business of society cannot be left to chance, and the earlier people are adjusted to a particular status, the more efficiently they are likely to function.

Factors in the determination of status. As was shown in a previous chapter,[1] however, biology plays a relatively small direct part in determining the status of individuals. For the most part, this is rather a responsibility of the culture. Culture may, nevertheless, utilize biological factors in making distinctions, as when society regulates the status of individuals according to age. Thus, an individual's privileges and obligations change as he grows older. In our society, for example, a very young child enjoys certain immunities: he is held to be incapable of crime, hence cannot be punished by the law. On the other hand, he is subject to special restrictions: he must go to school, he cannot marry, he cannot vote. The fact that he is a child helps to fix his rôle in the group. The specific respects in which children's rôles differ from those of adults vary from culture to culture, but everywhere such differences exist. The same is true for sex. In the United States, for instance, women lack certain opportunities and privileges of men. They do not have equal property rights with men; they are more severely limited in the matter of following a career; they do not enjoy as much freedom of conduct. In additional ways, their rôle in life is affected by the fact that they are women.

[1] Chapter III, "The Contribution of Biological Factors."

Although sex and age affect the social position which individuals occupy, it is plain that all individuals of the same age or sex do not play the same rôle in life or enjoy the same social status. Cleopatra's privileges rather exceeded those of her subjects, and the same is true now for the young Dalai Lama of Thibet. On the eastern coast of South Africa is the Bathonga society, a primitive community of about 750,000 persons. Here the lot of woman is hard. Women in Bathonga marry early, bear many children and devote themselves to arduous toil at home and in the fields. In the polygamous arrangement that prevails, it frequently happens that a wife sees her husband but once a month. She has no social relationship with him. He, on the other hand, is at leisure for nine months of the year. He spends his time playing games, drinking beer, and visiting the other villages.[1] Although oppressed as a group, still some of the women have more privileges and power than others. The first wife is respected and called "the great one," but the second or third wife has little prestige and much hard work. In bargaining for the "official wife" of the chief, payment must also be made for two girls, who accompany her and help with the household duties. The official wife is not supposed to have to draw her own water or to get her own wood. A child of the chief also is accorded special status, particularly if it be a boy. Though he may play the same games as the other children of the tribe, he is always accompanied by a small retinue which commands respect for him from his fellow playmates.[2] These distinctions are at once recognized as due to what we call differences in social class.

Social Class

What is a social class?

A social class is the aggregate of persons having essentially the same social status in a given society. Where societies are composed of social classes, the social structure generally resembles a truncated pyramid, with the lowest social class at the base and the other social classes arranged above it in a hierarchy of rank and distinction. The fundamental attribute of a social class is thus its social position of relative superiority or inferiority to other social classes. The arrangement is much like that of the college with its freshmen, sophomore, junior, and senior "classes,"

[1] See Margaret Mead, editor, co-operation and competition among primitive peoples (New York: McGraw-Hill Book Company, 1937).

[2] Henri A. Junod, the life of a south african tribe (London: Macmillan Company, Limited, 1927), p. 377 ff.

or the army with its enlisted men, company officers, field officers, and general officers. In Rome, for instance, there were the slaves, the large plebeian or common class and the five superior classes. In medieval European society the base of the social pyramid was taken by the *theow* class. Successively higher in rank were the *cotters*, *villains*, free tenants, and lesser gentry, with the nobility, royalty, and ecclesiastical officials

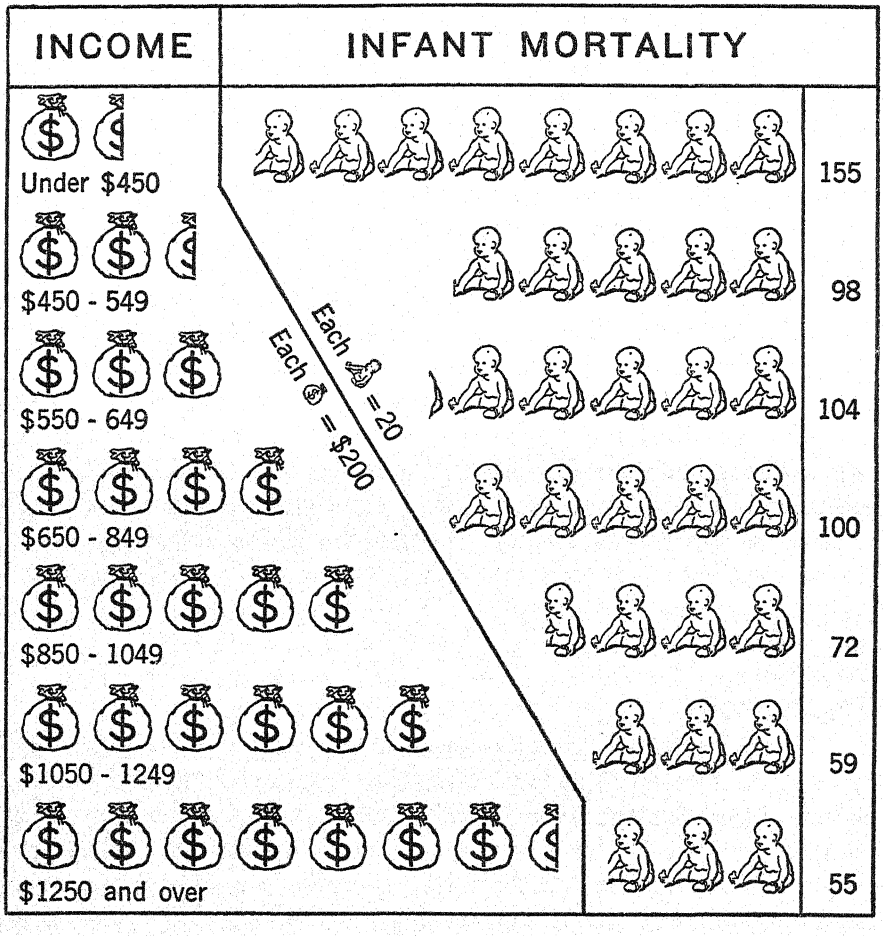


FIGURE 45. INFANT DEATH RATES BY INCOME LEVEL

The infant death rate is higher among the poor than among the rich. These figures for pre-World War times show a lower level of income than is prevalent now, but more recent studies based on rentals support the same conclusion. One way to lower the infant death rate would be to raise the income level. The infant mortality rate of 108 per 1000 for the income group $650–849 has been called 100 and all the others scaled accordingly. (*Based on data by* ROBERT M. WOODBURY.)

at the top. The members of the *theow* class were slaves, hence could be sold at will. The *cotters* and *villains*, on the other hand, were serfs, that is, bound to the soil. They could on this account be sold into the services of every purchaser. The free tenants, on the contrary, had land of their own. They were obliged to do a certain amount of work and pay certain fees to their lords. All governmental power rested in the hands of the nobles, the ecclesiastics, and the king.

Social class and "life-chances." Practically, the significance of a class system is that it determines the social rewards of people. The members of a particular class have more or less the same "life-chances," that is, the same probability of securing the good things of life, such as freedom, a high standard of living, leisure, deference, or whatever things are highly valued in a given society. "The influential," as Lasswell aptly puts it, "are those who get the most of what there is to get." [1] Hence if we regard a social class as a group based on certain resemblances of its members, we must view it as a group of persons with similar social chances.[2]

How do the social chances of different classes, say the rich and the poor, vary in our own society? Let us consider the chances of staying alive. What chance of surviving the first year of life does the average baby born into a lower class American family have compared with a baby born into a middle class family? The infant mortality rates (number of deaths under one year of age per 1000 live births) for seven cities studied by the Children's Bureau showed a decrease with increasing family income, as follows:[3]

TABLE 8. INFANT MORTALITY AND INCOME

Under $450	167
450–549	106
550–649	117
650–849	108
850–1049	83
1050–1249	64
1250–and over	59

In these communities, babies in families having $450 a year had about three times as many chances of not surviving the first year of life as did babies in families with an annual income of $1250.

[1] HAROLD LASSWELL, POLITICS: WHO GETS WHAT, WHEN, AND HOW (New York: McGraw-Hill Book Company, 1936), p. 3.

[2] An interesting statement of this operational point of view is that by T. H. MARSHALL, "SOCIAL CLASS — A PRELIMINARY ANALYSIS," SOCIOLOGICAL REVIEW (British), 26:60, January, 1934.

[3] ROBERT M. WOODBURY, "INFANT MORTALITY IN THE UNITED STATES," ANNALS OF THE AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE, 188:102–04, November, 1936.

Despite this selective influence, which probably means that those with sounder physiques tend to survive, the babies that grow up to be men and women of the lower class do not have such good chances of staying well as do those with more income. In 1935–36, about one third of all the families in the United States, or about 40,000,000 persons, received incomes of less than $800 for the year,[1] and of this group, one half were on public relief. A national health survey[2] during the same period showed that the number of family heads not seeking work because of chronic disability was one in 20 for relief families, one in 33 in non-relief families with incomes under $1000, and only one in 250 in higher income groups.

The poorest people were those most frequently sick, there being 57 per cent more illnesses disabling for a week or more among relief families than among those with incomes of $3000 or more. The relief families were also sick longer, the average case of disabling chronic illness lasting 63 per cent longer than among those in the higher economic brackets. Despite much less frequent and serious illness, families with incomes of $3000 or more secured 46 per cent more medical service, as measured by number of calls from a physician, than did relief families. The chances of staying well and of obtaining medical attention if ill are seen to be correlated with social class.

In much the same way a high positive correlation exists between social class position and mental and social health generally. The chances of a boy's becoming a juvenile delinquent or a public charge are in direct ratio to the economic status of his family, those on the lowest levels furnishing the greatest number of delinquents. On the other hand, a boy's chances of joining the Boy Scouts decrease as his family status decreases. In a comprehensive study of Rochester, New York, it was found that various types of social problems were most prevalent among relief families, the index of social disorganization correlating .94 with relief.[3] In a previous chapter[4] evidence was furnished showing

[1] NATIONAL RESOURCES COMMITTEE, CONSUMER INCOMES IN THE UNITED STATES (Washington: Government Printing Office, 1939, p. 18.

[2] THE NATIONAL HEALTH SURVEY, 1935–36 (Washington, 1938). Bulletin no. 2, ILLNESS AND MEDICAL CARE IN RELATION TO ECONOMIC STATUS.

[3] The index was compounded of the rates of juvenile delinquency, child neglect, membership in Boy Scouts, density of population, size of family, birth rate, tuberculosis rate, and death rate. RAYMOND V. BOWERS, "ECOLOGICAL PATTERNING IN ROCHESTER, NEW YORK," AMERICAN SOCIOLOGICAL REVIEW, 4:180–89, April, 1939. For maps picturing these phenomena, see Chapter XIV, "Human Ecology."

[4] Chapter VIII, "Personality Disorganization."

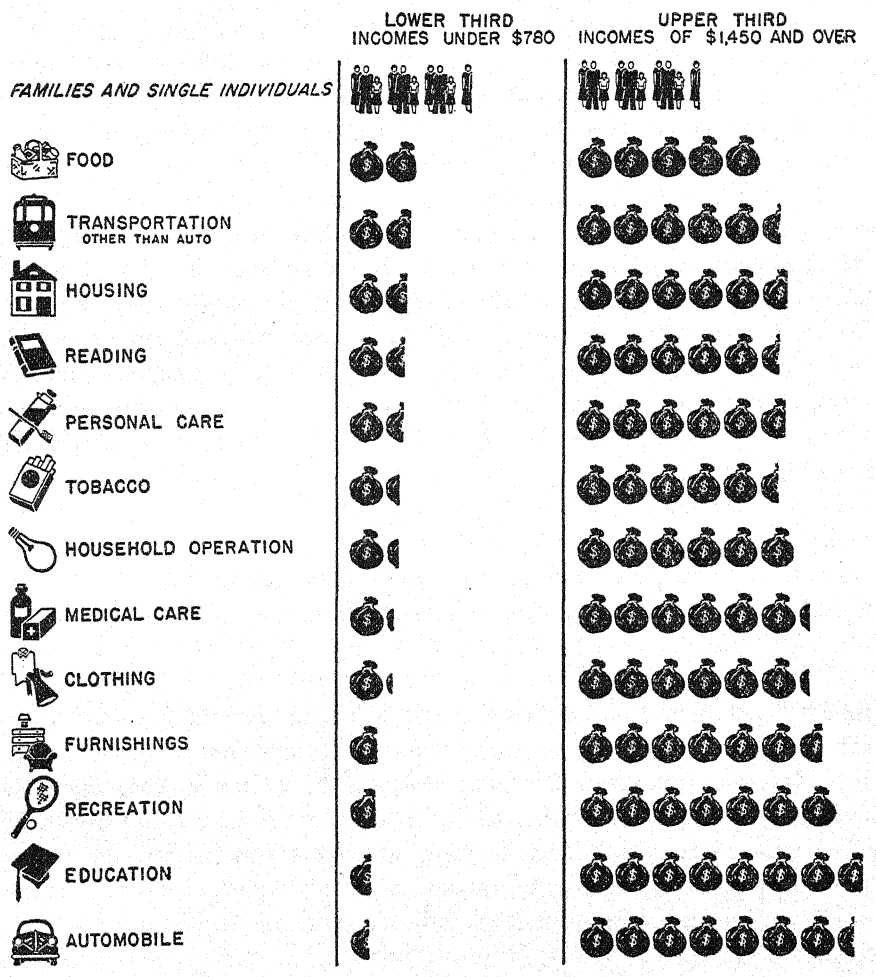


FIGURE 46. WHAT THE POOR AND RICH CAN BUY

Total expenditures of the upper and lower thirds of the consuming units of the United States in 1935–36, by type of expenditure. Each figure symbol represents 10 per cent of all families and single individuals. Each bag symbol represents 10 per cent of total expenditure on specified category of consumption. From NATIONAL RESOURCES COMMITTEE, CONSUMER EXPENDITURES IN THE UNITED STATES (*Washington: Government Printing Office, 1939*), *p. 9.*

that the frequency of certain types of mental disorders is likewise associated with social class.

It is interesting to inquire how the chances a boy or girl has of going to college are affected by social class. Despite the fact that a good deal of higher education is provided by the state at a low cost to the student,

it is found that 52 per cent of the children of professional people go to college, as contrasted with only 6 per cent of the children of unskilled laborers.[1] For various reasons those who are on the lower rungs of the social ladder do not stand as good a chance of getting a college education as those who are higher up in the social-economic scale.

What are the chances of the lower class obtaining justice in the courts? Much is made of "equality before the law" in our culture, but such equality exists in principle rather than in fact. Since it costs money to ask for justice, notwithstanding the legal-aid clinics available to the poor in a few places, the poor are less likely to seek redress for wrongs. If charged with a criminal offense, a poor man is under a substantial handicap. Except in extreme cases, like murder, the rich man so charged will be summoned, then released on bail. The poor man is likely to be arrested, and in default of the bail which he cannot furnish, will be remanded to jail — not the best place to build up a defense against the charges. The rich man may secure the ablest lawyers, expert witnesses, changes of venue, and delays. If he is at last found guilty, the usual sentence is a pecuniary fine, which means little to a man of means, but much to a poor man.[2]

There is some evidence to show that a person's social class status affects his chances of developing a socially helpful personality. Children in two nursery schools were compared as to certain traits of personality.[3] School A was attended almost exclusively by children whose parents were of the professional class, while the children in school B were those of working mothers. The children in the two schools were rated in respect to spontaneity of speech and drawing, persistence, co-operativeness, poise, eating and sleeping habits, self-care, and play initiative. Except for self-care, Group A rated consistently higher than B, especially in spontaneity, initiative, and poise. The superiority of Group B in self-care is easily understood, since with working mothers the children were obliged to look after themselves. The limitation of this study is that the testing itself is in terms of upper class values, but there is no gainsaying the fact that such traits as those mentioned above are socially helpful. The study shows that children on the lower economic levels are much less likely to develop such traits.

[1] See URBAN YOUTH, THEIR CHARACTERISTICS AND PROSPECTS, Publications of the Division of Social Research, Works Progress Administration, series 1, no. 24.

[2] Cf. E. A. PARRY, THE LAW AND THE POOR (New York: E. P. Dutton and Company, 1914).

[3] A. GESELL and E. E. LORD, "PSYCHOLOGICAL COMPARISON OF NURSERY SCHOOL CHILDREN FROM HOMES OF LOW AND HIGH ECONOMIC STATUS," JOURNAL OF GENETIC PSYCHOLOGY, 34:339–56, September, 1927.

Earmarks of class. In order to mark clearly those who belong to a given social class, various devices are utilized. Distinctive dress is one such means of identification. The purple of ancient royalty and the gorgeously embroidered skirts of the Chinese mandarins are examples. Supplementing distinctive dress there are the symbols and signs of social station. Chains betoken slavery. Crowns and scepters are the marks of sovereignty. Finally mention may be made of the fact that the members of a social class tend to show attitudes of inferiority toward those who are regarded as socially superior, and conversely, attitudes of superiority toward those who are deemed to be inferior. Only members of the same social class meet on equal terms. This is evidenced by the fact that in a stratified society the marriage of individuals of different social classes is definitely discouraged. Deference to the upper classes comes to be expressed in meaningful gestures, such as the salute, the obeisance, and the genuflection. As W. I. Thomas points out, "the bow is an incipient prostration." [1]

Social classes occupy, as it were, "private worlds." They live apart and they live differently. As a result of such segregation and isolation, social classes develop, in various aspects of life, additional traits and characteristics which set them off from one another. The cockney dialect of the lower-class Englishmen, for instance, helps to mark them off from the products of Eton and Harrow. Also, the folk dance of the French province was a thing apart from the minuet of the Parisian court. As in speech and recreation, so too in other regards classes develop additional earmarks. Each class comes to have its special culture.

CLASS AND CASTE

In some societies it is not uncommon for individuals to move up or down the social ladder. Where this is the case the society is said to have "open" classes. Elsewhere there is little shifting, individuals remaining through a lifetime in the class into which they chance to be born. Such classes are "closed," and if extremely differentiated constitute a caste system. "When a class is somewhat strictly hereditary," says Cooley,[2] "we may call it a caste."

Although evidences of caste are to be found in many parts of the world, the most perfect instance is no doubt that which exists in India. There we find a social organization "as elaborate in its heaped-up storeys as

[1] W. I. Thomas, PRIMITIVE SOCIETY (New York: McGraw-Hill Book Company, 1937), p. 50.

[2] C. H. Cooley, SOCIAL ORGANIZATION, p. 211.

one of its own pagodas — and vastly more intricate." [1] At the top is the Brahman or priestly caste. Below it in rank comes the Kshatriya or warrior caste; next comes the Vaisya or agriculturist and mercantile caste; and then the Sudra or artisan and laboring caste. These castes in turn are divided and subdivided into hundreds of sub-castes. Finally, entirely apart, is the group of Outcastes.

Although the history of this system is not entirely clear, it seems that in the beginning class lines followed occupational lines but were not sharply drawn. The first influence toward a caste system was supplied by the Aryan invasion. The Sudra caste is mainly composed of the descendants of the conquered natives. As the priestly influence grew in India, complicated rules of ritual and conduct were built up and incorporated into the religious books of Hinduism. Especially effective in sharpening class lines was the idea of reincarnation. According to this view, an individual's caste is determined by his previous life. It is fitting for him, therefore, to accept his present station with grace; but he may, if he lives right, look forward to a promotion in the next life. This religious ideology has made it exceedingly difficult to effect any far-reaching modification of the East Indian caste system.[2]

An individual's caste rather definitely fixes his rôle in life. It determines not only the work he will do, the group within which he will marry, but the very routine of his daily conduct. "There is," writes one who was born a Brahmin,[3] "a ritual for every hour of the day in India; the ritual of the peasant and the workman, and the ritual peculiar to the Brahmin household like ours. The members of my family, the townspeople, the laborers in the field, the many beggars — each followed an intricate and age-old pattern of life, from sudden sunrise, through fervid noon, to the heavy fall of night and silence."

Relations between caste members are fixed as well. There are definite limitations on the contact of members of different castes, and of caste and outcaste individuals. This may be seen from a schedule of disabilities used by the Commissioner of British India in taking the census of low-caste individuals. The disabilities are as follows: (1) obstacles in the way of using public institutions or amenities, such as schools, wells, or bathing places; (2) prohibition on entry into Hindu temples; (3) refusal

[1] C. M. CASE, OUTLINES OF INTRODUCTORY SOCIOLOGY (New York: Harcourt, Brace and Company, 1924), p. 516.

[2] K. F. LAEDECKER, "MEANING OF CASTE TO THE HINDUS," INTERNATIONAL JOURNAL OF ETHICS, 43:183–93, January, 1933.

[3] D. G. MUKERJI, CASTE AND OUTCASTE (New York: E. P. Dutton and Company, 1923), p. 6.

of barbers, tailors, washermen, and others to render them service, on caste grounds; (4) refusal to accept water from them; and (5) pollution by contact or proximity. Since caste rests on birth, the fundamental prohibition of contact is, of course, the taboo against intermarriage.[1]

Class societies may be represented as extending all the way from those like the above, which are relatively rigid or closed, to those which are flexible and open. It is, however, important for the reader to observe that even the most rigid social structure shows some mobility,[2] that is, movement up and down the social ladder. Were this not so it would be difficult to account for the hundreds of sub-castes which are to be found in India. Equally important is the fact that even in the most mobile of stratified societies, most individuals remain forever in the class of their birth. This can be shown, for example, by an examination of the statistics on occupations, marriage, and the like for several generations of the population.

THE RELATION OF CLASS AND CULTURE

It is clear that the class system is a function of the total culture. It is appropriate, therefore, to raise at this point certain questions concerning the relation of social classes to the larger cultural configuration. What are the conditions which give rise to the formation of social classes? What factors promote and what factors hinder the growth of classes? What is the effect and significance of stratification?

Social classes are rarely to be found in the lowest primitive barbaric societies. "There is," writes Hobhouse,[3] "always the distinction between its own members and outsiders; there is also a greater or less distinction in the rights enjoyed by the two sexes. In other respects the obligations constituting its ethical life are fairly uniform." That is, equality of rank generally prevails among those on the very lowest levels, such as the Andaman Islanders, the Shoshone and Tierra del Fuegans. Individuals

[1] C. SORABJI, "CASTE TABOOS," THE SPECTATOR, 155:182–83, August, 1935.
To be noted here is the importance of the idea of pollution. Since impurity is thought to inhere in the lower castes, higher castes must not have intimate contact with them. "In India the idea of pollution is a mystical notion which 'explains' or justifies the caste structure. . . . It furnishes the motivation behind the intricate system of regulations, these being necessary to preserve purity. This notion of pollution, though not so well developed, also exists in the South regarding Negroes, and serves to justify their relegation to a pariah status." KINGSLEY DAVIS, THE AMERICAN CASTE SYSTEM. An unpublished manuscript in the possession of the author.

[2] P. SOROKIN, SOCIAL MOBILITY, chap. VII.

[3] L. HOBHOUSE, MORALS IN EVOLUTION (New York: Henry Holt and Company, 1924), vol. I, pp. 281–83.

differ in prestige according to personal traits such as skill in hunting or ability to entertain, but there are no distinctions of rank enjoyed by particular groups.[1] There are no rich or poor people because existing property is too limited in amount to create significant differences in wealth.

As material goods increase in volume, however, conditions become more favorable for the creation of classes. Accumulated wealth is not distributed evenly, but accrues to some more than to others. Wealth means power, that is, command over services and goods, and is accompanied by respect and influence. Wealth affords a more permanent basis for social differentiation than personal qualities, for wealth is more easily transmitted from one generation to the next. Wealth is also retained by intermarriage, the union of the rich with the rich, or class endogamy, being common.

As culture grows, increasing division of labor also occurs; this likewise fosters the development of social classes, since different degrees of social prestige attach to different occupations and the latter can be transmitted from parents to children. As Veblen [2] has pointed out, special dignity generally attaches to occupations of exploit, or prowess, such as those pertaining to government, warfare, religion, and sports, while manual labor and the handicrafts are generally regarded as drudgery and held in low esteem. Only occasionally are craftsmen revered as the canoe-builders are in Samoa.

While a higher development of material culture is favorable to the growth of social classes, the situation is not uniform on any given cultural level. In general it may be said that the American Indians north of the Rio Grande developed societies which were relatively free of class distinctions,[3] whereas in Polynesia, and more particularly in Africa, class lines came to be sharply drawn. Indeed, Africa presents stratified societies which rival those of literate peoples. In Ruanda, Congo, for example, about a million and a half native Bantu peasants are ruled over by a race of mixed Negro and Caucasian cattle breeders, with the Pygmy hunters forming the third and lowest class. The Bantu have few rights as against their rulers, who destroy crops whenever such action serves

[1] GUNNAR LANDTMAN, THE ORIGIN OF THE INEQUALITY OF THE SOCIAL CLASSES (Chicago: University of Chicago Press, 1938), chaps. I–VI.

[2] THORSTEIN VEBLEN, THE THEORY OF THE LEISURE CLASS, chap. I.

[3] A noteworthy exception is afforded by the Kwakiutl Indians of the Northwest, whose society consists of noblemen, commoners, and captive slaves.

the interests of grazing. In Samoa class distinctions are similarly pronounced. As evidence, the portion of pig which an individual receives at a feast is determined by his rank. The meat is served either raw or only partially cooked, since cooking would blur the ceremonial divisions![1]

Factors favoring the growth of social classes. Cooley[2] taught that the three principal conditions favoring stratification are: (1) marked differences in the constituent parts of the population; (2) little communication and enlightenment; and (3) a slow rate of social change. The presence in the same area of individuals of different races has already been shown to be a factor in India and in Africa. In the United States a pronounced difference in skin color is the basis for the caste distinction between Negroes and whites. The presence of racially dissimilar peoples in the same region suggests invasion, and invasion in turn suggests conquest. Conquest facilitates the formation of castes by providing a servile group in those who are conquered.

As for the relation of mass ignorance to the growth of caste, it is obvious that a people can be more readily held in subjection if they are unaware of the lot of individuals in other lands. The ruling classes are disposed, therefore, to keep the masses ignorant and uninformed. Not infrequently the established church plays a major part in this enterprise, conveying the idea that the existing system is the will of God. This was clearly the case in pre-revolutionary Russia.

The third factor of a slow rate of change is, of course, closely related. In the very nature of things, it takes several generations for a caste system to get a firm footing in a social system. After a period of time the dominated class or classes become accustomed to differential treatment and accept it as normal. A slow-moving society allows caste principles to take root, after which caste itself becomes one of the principal forces limiting social change. In recent years the increased rate of social change in India has been responsible for modifications of the caste structure. For instance, for a long time there were separate roads in India, known as "Brahmin Roads"; if an outcaste chanced to come near one of them, he was required to cry his approach. This is no longer the case. Also, outcastes are now permitted to engage in occupations above their degree.

[1] R. LOWIE, AN INTRODUCTION TO CULTURAL ANTHROPOLOGY (New York: Farrar and Rinehart, 1934), p. 66.

[2] C. H. COOLEY, SOCIAL ORGANIZATION, p. 217 ff.

Social Stratification in the United States

The reader naturally has a special interest in the social structure of the United States and wishes to know what it shows in regard to social classes. Despite the democratic shibboleth that "all men are created free and equal," classes do exist in the United States. To stress the fact that half of all the presidents of the United States were of humble birth [1] is only to emphasize the dramatic exceptions to a rule and not the rule itself. The rule is that the overwhelming majority of individuals remain in the classes into which they are born.

This conclusion is supported by an abundance of evidence on occupational succession in families. A sample study [2] of 1242 persons comprising 7 per cent of the working population of San Jose, California, in 1930, showed that while there have been some shifts in the socio-economic organization of the community in the last few generations, the social-class situation has remained much the same. That is, there has been some shifting of jobs without shifting of class. The older occupational set-up of the community consisted largely of proprietors, skilled workers and unskilled workers. Lately there has been a heavy flow of workers into professional positions and into the expanding clerical and semi-skilled occupations. If we examine the evidence more closely we find that, of the sons of unskilled workers, 41.7 per cent followed in their fathers' footsteps; 16.5 per cent became semi-skilled workers; 13.7 per cent skilled workers; 13.7 per cent clerks; 10.3 per cent proprietors; and 4.1 per cent professional people. While recognizing here a considerable degree of mobility, we observe that most of the sons of unskilled workers remained in their fathers' social class.

The mobility for the country as a whole is doubtless much less than it is in this developing, progressive far-western community. After reviewing numerous studies, Sorokin [3] concludes that despite considerable mobility most children continue their fathers' work or enter closely allied fields. An even larger number remain on the same occupational level. That is, there is much more mobility between occupations on the same social level than between those of different levels. "Only a relatively small part of (the children of common laborers) succeed in entering the

[1] P. Sorokin, "The Monarchs and the Rulers," Social Forces, 4:22–35, 523–33, September, 1925, March, 1926.

[2] Percy E. Davidson and H. Dewey Anderson, Occupational Mobility in an American Community (Stanford: Stanford University Press, 1937).

[3] P. Sorokin, Social Mobility, chaps. xvii, xviii, xix.

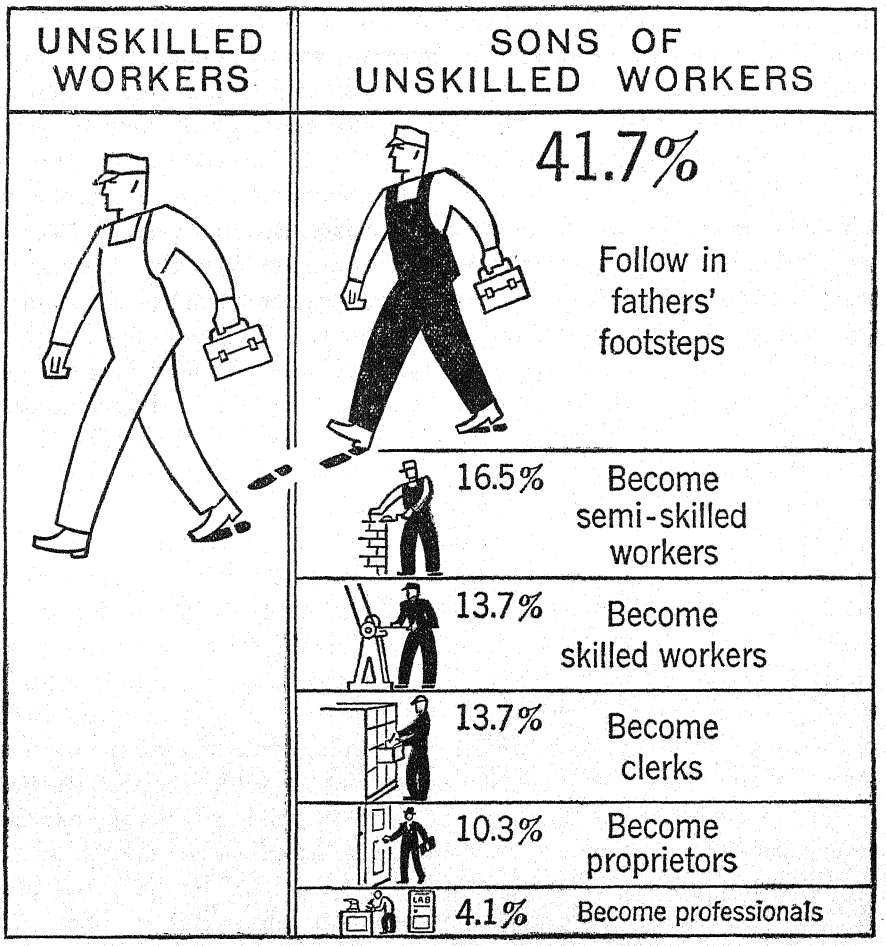


FIGURE 47. STABILITY OF THE SOCIAL CLASSES

Though an individual in America may move from one class to another, statistics on the occupations of fathers and sons show that for the most part the occupations of the sons are in the same economic class as those of their fathers. (*Based on data from* P. E. DAVIDSON *and* H. D. ANDERSON.)

higher professional occupations, (or in) becoming managers and owners of big business enterprise."

THE AMERICAN CASTE SYSTEM

American society is, indeed, organized not only along class lines but along caste lines as well, particularly in the South. The fundamental

rule is that Negroes and whites must not associate on the basis of equality, especially in relations of intimacy. Since the most intimate relationship of all is marriage, the strongest taboos are leveled by the laws of many states and by the mores of all, against intermarriage of Negroes and whites. Since one gains access to a caste by birth, the taboo against intermarriage is fundamental. As for other personal relations, the Southern white boy is taught not to say ma'am to a Negress, not to tip his hat to her, and not to give her the right of way on the sidewalk. Separate seats are assigned Negroes in streetcars, separate coaches on trains, separate waiting rooms at railroad stations. Theaters, restaurants, hotels, and other commercial establishments often exclude Negroes or provide separate services for them. The facilities provided for Negroes are usually much poorer, much less adequate than those available to white people. The school buildings assigned to their use are generally the poorest, and the salaries of Negro school teachers the lowest.

White people, of course, get certain important differential benefits out of the caste arrangement. The economic gains are evident. The presence of the Negroes in the South makes it possible for the middle-class whites to avoid a good deal of manual labor and the more monotonous kinds of work. Of women engaged in "domestic and personal service" in a Southern town, 97 per cent are Negresses.[1] Negroes also do most of the cotton-picking, a backbreaking job done usually during the hottest season of the year. Middle-class whites pick very little cotton, getting better pay for easier work. In the rural South, the income of the middle Negro family in 1935–36 was $9 a week, the income of the middle white family $21 a week.[2] The poor whites have a hard lot, too, and are greatly despised by those of the middle and upper classes. But the "poor white trash," including "crackers," "rednecks," and "sagers," according to the particular region considered, feel that they and the other white people are distinct from the Negroes. No matter how low in the social scale a white Southerner may be, he can always count on deference from Negroes. The doffing of the cap and the bowing of the head to the white man are immensely satisfying to his ego. Deference is thus one of the white man's principal gains from the caste system. A third advantage is the sexual, for while white men may with impunity have access to Negro women, the consorting of Negro men with white women is regarded as a shocking offense.

[1] JOHN DOLLARD, CASTE AND CLASS IN A SOUTHERN TOWN, p. 96.

[2] NATIONAL RESOURCES COMMITTEE, CONSUMER INCOMES IN THE UNITED STATES, 1935–36 (Washington: Government Printing Office, 1939), Table 13, p. 28.

In these respects the American caste system is much like that of India, but in at least one important particular it is quite different. While in America the lines between castes are rather tightly drawn, the members of the inferior caste are not all restricted to the same class status. As a result of the emancipation of the Negroes, and the opening of an assortment of occupations to them, there has been some class mobility within the Negro caste, so that at the present time some Negroes are on a higher class level than some whites. Warner[1] illustrates the situation by means of the diagram on page 324.

A GENERAL CLASSIFICATION OF AMERICAN SOCIAL CLASSES

As a rule, three classes are indicated in the United States: the lower, the middle, and the upper. The lower classes are poor, the upper rich, and the middle class ranges in between. Attempts to define the membership of these classes, however, with anything approaching precision have not been satisfactory. The lower classes are propertyless workers, such as the unskilled, the semi-skilled, farm laborers, and those on relief. The upper classes are the owners of the capital and the important means of production, such as large merchants, manufacturers, bankers, and railroad men. The middle class is composed of independent small producers, small owners of property or of their own means of livelihood. Particularly confusing is the composition of the middle class, "a mixture of heterogeneous elements, some in undisguised conflict." [2] The white-collar group, comprising those engaged in clerical and kindred pursuits, is generally assigned to the middle class. Despite the fact that the average salaries for this group are small, they exceed those of wage-earners. More important, perhaps, white-collar workers are generally accorded a higher social status than are wage-earners and find it easier to move up the social ladder.[3] Salaried professional people belong in the middle class, as do salaried business employees. The gap between the lower-salaried business employees and higher managerial, supervisory, and technical employees in corporate industry is, however, quite great, the latter group being almost wholly identified with upper-class interests.[4]

[1] W. LLOYD WARNER, "AMERICAN CLASS AND CASTE," AMERICAN JOURNAL OF SOCIOLOGY, 42: 234–37, September, 1936.

[2] ALFRED MEUSEL, "THE MIDDLE CLASS," ENCYCLOPEDIA OF THE SOCIAL SCIENCES (New York: The Macmillan Company, 1930–34), vol. 10, pp. 407–15.

[3] In the San Jose occupational survey, referred to previously in this chapter, sons of fathers in clerical work showed the greatest mobility.

[4] For discussion of conflicting elements in "the new middle class" see LEWIS COREY, THE CRISIS OF THE MIDDLE CLASS (New York: Covici Friede, 1935).

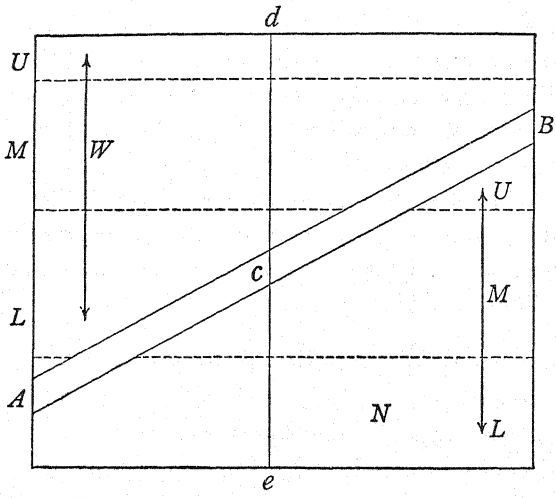


FIGURE 48. SCHEMATIC DIAGRAM OF AMERICAN CLASS AND CASTE

The diagonal lines separate the lower Negro caste (N) *from the upper white caste* (W), *and the two broken lines in each segment separate the three general classes (upper, middle, and lower) in each caste from each other. The two double-headed vertical arrows indicate that movement up and down the class ladders in each caste can and does take place and is socially sanctioned, but that there is no movement or marriage between the two segments. The diagonal arrangement of the parallel lines which separate the two castes expresses the essential skewness created by the conflict of caste and class in the South. The gradual elaboration of the economic, educational, and general social activities of the Negro caste since slavery (and to some extent even before) has created new groups which have been vertically arranged by the society until certain fairly well-marked class groups have developed within the Negro caste. As the vertical distance of the Negro group has been extended during the years, the top Negro layer has been pushed higher and higher. This has swung the class line to its axis* (c), *so that the top Negro group is higher in class than the lower white groups and is so recognized. (This recognition is expressed in circumlocutions and by unconscious actions, but is at times also consciously and openly stated by the members of both the white and the Negro groups.) If this process continues, as it seems to be doing at the present time, it is possible, and indeed probable, that the lines* AB *might move on the axis* c *until they approximate the hypothetical line* de. *(Theoretically, of course, this process could go farther, but it seems unlikely.) This tendency to bring the two groups out of the vertical opposition and organization into a horizontal arrangement is being reflected at the present time in such movements as "parallelism,"* [1] *as expounded by Dr. Du Bois. . . . Should the line* AB *reach the position* ed, *the class situation in either group would not be fundamentally disturbed, except that the top Negro group would be equivalent with the top white, while the lower classes in each of the parallel groups would also be equivalent. Even the present approximation of this gives the top Negro certain advantages over his lower-class fellows which he is anxious to maintain.*

[1] Parallelism calls for the provision of opportunity for Negroes to develop institutions and communities on a par with those of white men, rather than the granting of equal rights to Negroes within the institutions and neighborhoods of white men.

Life of the lower classes. The two extremes of the social scale are clear. At the lower end are the millions of individuals on public relief. Also in the lower class are the tenant farmers and the so-called sharecroppers, who pay the landlord a share of the crop produced, anywhere from a third to a half of the yield, depending on whether or not the owner furnishes the team and farming equipment.[1] In addition the landlord may supply seed, and fertilizer credit of from five to ten dollars a month is extended at the neighborhood store or at a commissary owned by the landlord. This debt is to be repaid when the crop is sold. If the crop is poor or the price low, the tenant remains in debt. In some cases he may move on, in other cases he may be kept on the land to work off the debt.[2] Economically, then, the sharecroppers are severely limited. In 1934 the tenant families of the Southern plantation had an average net income of only $309, or $73 per person, for the year. Sharecroppers received $312, or $71 per person, while wage hands had a net income of only $180 per family. The income for croppers ranged from $38 to $87 per person. An annual income of $38 per person is equal to slightly more than ten cents a day.[3]

In other ways, too, these people are restricted.[4] In Alabama, for instance, there were 1,348,401 citizens of voting age in 1932; yet of this number only 325,000 were registered. The state constitution stipulates that no one shall vote who has not paid a poll tax and been employed for six months of the year preceding the election. It should be mentioned that there are twice as many white as Negro tenants in the South. Vance [5] gives us some additional details concerning the tenant situation in the South:

[1] Technically, tenants are those who supply their own teams and plows.

[2] GORDON W. BLACKWELL, "THE DISPLACED TENANT FARM FAMILY IN NORTH CAROLINA," SOCIAL FORCES, 13:65–73, October, 1934. See also BLACKWELL'S "THE BANKHEAD-JONES FARM TENANCY BILL," *ibid.*, 13:575, May, 1935.

[3] From FARMERS WITHOUT LAND, by RUPERT B. VANCE, published by the Public Affairs Committee, New York City.

[4] LEONARD DOOB, in his study of these poor whites, shows how class lines are drawn, as follows: "At the official opening of a state park named in honor of a deceased state senator, the entire population of the region was invited; to be sure, it was not necessary to specify on the numerous posters that only white people were included. Poor whites thronged the place in large numbers, no doubt because a free lunch was served. But none of them wandered near the central lodge or close to the tree where the governor and his staff were being greeted by the citizens; a perceptible social barrier seemed to be compelling them to stay within certain physical boundaries." Doob's study of poor whites in a Southern town forms the appendix to JOHN DOLLARD'S CASTE AND CLASS IN A SOUTHERN TOWN, p. 464.

[5] *Op. cit.*

Unless one has actually observed the way tenants live, the situation is hard to visualize. Tenant housing is the poorest in the nation, often consisting of two or three room unpainted shacks with but one thickness of boards. Their customary clothing of patched overalls or faded gingham dresses show that tenants, black and white, get very little of the finished products of the cotton they grow. Their basic diet — fatback, cornbread, molasses, and sweet potatoes — has been well publicized by the researches of the United States Public Health Service in a study of the basic causes of pellagra. One-third of the tenants' net income is in the form of home grown products, but these items of food serve only to enrich their diet during the summer and autumn months. One-third of their net income is spent by the tenants for clothing and necessities, immediately after settlement. With money and gardens gone, they fall back on credit, and the season of "slim rations" begins all over again. Only 55 per cent of the tenants studied had cows, and except when the plantation furnished the land as part of a regular policy, few had permanent gardens. On 15 per cent of the plantations, tenants were required to buy at commissaries; on another 11 per cent such purchases were optional.

Where money is scarce, household labor is backbreaking work. The heavy load of the tenant mother, especially in the South, can only be suggested by the things they struggle with: wash tubs, flat irons heated before open fireplaces, wood to "tote," water to carry in lard cans. And at the same time these women work longer in the fields and bear more children than any other group of women in America.

Medical and health services are entirely inadequate. Children are born under the ministrations, not of doctors or nurses, but of Negro midwives. Patent medicines, often prescribed by the storekeeper, are the main recourse in illness.

Life of the upper class. An account of a section of the upper class of Chicago as of the late 1920's has been given us by Zorbaugh.[1] The so-called "upper 400" are those who have arrived socially. They form a self-conscious group and are recognized leaders of "society," which consists of about 6000 persons whose names appear in the Social Register of Chicago. To be listed "one must not be 'employed,' must not make application, and must be above reproach." This class has newspapers of its own, the *Clubfellow* and *Town Topics*, and of course receives special space in the daily papers. There are certain clubs in which membership is almost obligatory, since a man is placed by clubs. The best clubs are the Casino, and the Saddle and Cycle, but Onwentsia, Shore Acres, the

[1] HARVEY W. ZORBAUGH, THE GOLD COAST AND THE SLUM.

Racquet, and Indian Hill will do. The elite live apart not only socially but geographically as well. The leaders live along the "Gold Coast," which extends from East Chestnut Street to Lincoln Park, and west to North State Parkway, a strip about a mile in length and two blocks deep. If one lives at a hotel, it should be the Lake Shore Drive Hotel or the Ambassador. Summer colonies are located at Lake Forest, Hubbard Woods, and a number of other places. Life revolves around the social season — a round of activities that is the pageant of "society," including balls, assemblies, and parties, lasting about four months — following which there is an exodus to warmer climes. There may be a return to the city in time for the Easter holidays, but with the approach of warmer weather another exodus to the summer colonies occurs.

A typical calendar of a society woman is given as follows:

> Hairdresser — once or twice a week.
> Manicure — once or twice a week.
> Massage — once a week.
> Dressmaker.
> Shopping — every few days.
> Ballet class, to preserve the figure — once a week.
> French class, group of six, at a friend's home — once a week.
> Lectures — Bridges' series of six (time to attend only three) at the Playhouse, and the Fortnightly Club.
> Club meetings — two clubs, each meeting monthly, at the Fortnightly, non-uplift; papers by members, and luncheon, or tea.[1]

The bases of upper-class position. Money and family are the two keys to the doors of "society." Those with the highest social-class status are generally those who have been wealthy the longest, allowing the family reputation to be firmly established. The significance of wealth, as the German sociologist Georg Simmel[2] has so ably shown, lies in the freedom it affords, freedom from drudgery and the routine of everyday work, thus releasing time and energy for the cultivation of fine taste, good manners, and the like. The *nouveau riche* have the wealth but not the family reputation, hence meet with some difficulty in securing recognition from the elite. It may take more than a single generation to acquire the "good breeding" and to obtain social acceptance on the higher levels. But if the family retains the wealth over a number of

[1] HARVEY W. ZORBAUGH, *op. cit.*, p. 55.

[2] N. SPYKMAN, THE SOCIAL THEORY OF GEORG SIMMEL (Chicago: University of Chicago Press, 1925).

generations the breeding is likely to come and so, too, the social-class status.

How those who have been wealthy a relatively short time play "the social game" in their bid for status and prestige is described by Zorbaugh in the study already cited. "The social game" calls for a great deal of publicity, display, and lavish spending, for unless there is "conspicuous consumption," the fact that a family possesses wealth may not be recognized. There are certain events of the season to which the best people are invited, and an invitation to one of these occasions is sometimes managed by the socially aspiring through such means as the contribution of a substantial sum to a charity in which the social leader is much interested. Although there is generally a lag between the acquisition of wealth and the attainment of social recognition, given time, the lag is likely to be taken up.

Since class membership, once obtained, is socially inherited, upper-class position is often retained by families that once had wealth but have it no more. Upper-class status does not require the continual underpinning of economic pre-eminence. For example, in the South, as Dollard [1] shows, a person may have little money, but still be one of the "aristocracy." If a Southerner, reading through a history book, stops now and then to say, "Oh, yes, that is Governor So-and-so; he was my grandmother's brother," or "General Blank married a second cousin of my mother; she was one of the South Carolina Blanks, you know," he is an upper-class person, even if he is not rich. Nowadays much of the claim to position is based on such interrelationships with other leading families of the past rather than on current achievement. These families still enjoy the status that goes with upper-class position, even though they do not have the standard of living. In India, the exigencies of life have brought about a similar situation, in that the Brahmin caste still rates highest in social status, but has been put in seventh place in a national rating according to solvency and credit.[2]

THE COMPOSITION OF AMERICAN SOCIAL CLASSES

It would be desirable to have a census of social classes in the United States somewhat comparable to the government census of castes in India, but this is out of the question. Available enumerations are practically all of occupational groups rather than of social classes. In the census classification of occupations, farmers are treated as a class, with no dis-

[1] JOHN DOLLARD, *op. cit.*, p. 80.

[2] S. S. NEHRU, CASTE AND CREDIT (London, New York, and Toronto, 1932), p. 15.

tinction made between owners and tenants; all professional persons are grouped together, regardless of income, and so on. Another obstacle to a census of American social classes is the absence of nation-wide data on income according to particular occupations. There are, however, some figures on incomes of occupational groups, as follows:

TABLE 9. AVERAGE INCOMES OF NON-RELIEF FAMILIES IN SEVEN OCCUPATIONAL GROUPS, 1935–36 [1]

Occupational Group	Mean	Median
Farmers	$1259	$965
Wage-earners	1289	1175
Clerical	1901	1710
Independent business	2547	1515
Salaried professional	3087	2100
Salaried business	4212	2485
Independent professional	6734	3540

The gainful workers in the United States in 1930 have been classified according to social-economic groups, as given below:

TABLE 10. GAINFUL WORKERS IN THE UNITED STATES CLASSIFIED INTO SOCIAL-ECONOMIC GROUPS 1930 [2]

Group	Number	Per cent
Total	48,829,920	100.0
1. Professional persons	2,945,797	6.0
2. Proprietors, managers, and officials	9,665,540	19.8
2-a Farmers (owners and tenants)	6,012,012	12.3
2-b Wholesale and retail dealers	1,787,047	3.7
2-c Other proprs., mgrs., and off	1,866,481	3.8
3. Clerks and kindred workers	7,949,455	16.3
4. Skilled workers and foremen	6,282,687	12.9
5. Semi-skilled workers	7,977,572	16.3
5-a Semi-skilled workers in mfg	4,557,993	9.3
5-b Other semi-skilled workers	3,419,579	7.0
6. Unskilled workers	14,008,869	28.7
6-a Farm laborers	4,392,764	9.0
6-b Factory & bldg. const. laborers	3,374,143	6.9
6-c Other laborers	2,903,065	5.9
6-d Servant classes	3,338,897	6.8

If Tables 9 and 10 are examined, the difficulties in the way of comparing them are at once evident. In Table 9, which shows incomes, for instance, the professional group is broken up into two units, whose average annual earnings differ appreciably, whereas in Table 10 all profes-

[1] NATIONAL RESOURCES COMMITTEE, CONSUMER INCOMES IN THE UNITED STATES, 1935–36 (Washington: Government Printing Office, 1938). Adapted from Table 9, p. 26.

[2] ALBA M. EDWARDS, A SOCIAL-ECONOMIC GROUPING OF THE GAINFUL WORKERS OF THE UNITED STATES (Washington: Government Printing Office, 1938). Adapted from Table 1, pp. 3–6.

sional persons are grouped together. The table of incomes includes all wage-earners in one group, while the classification according to work gives separate figures for the unskilled, semi-skilled and skilled workers. The data permit us only to say that the lower class constitutes perhaps a majority of the population, while the upper class, even by the most liberal estimate, comprises an exceedingly minute group. The number of families with incomes of $10,000 or more was 330,740, or only .83 of 1 per cent of all income-receivers; those with incomes of $25,000 or more for the year numbered 70,310, or .17 of 1 per cent; while those with incomes of $100,000 or over numbered 5387, or .01 of 1 per cent.

AMERICAN VERSUS EUROPEAN SOCIAL CLASSES

While America is clearly not without social classes, it must at once be added that they are by no means like those to be found abroad. In America, class lines are not drawn so sharply as in England and Europe, and there is considerably more vertical mobility, or movement up and down the social ladder. This greater mobility in the United States derives from a number of historical factors. Significant has been the influence of the frontier,[1] where "the rifle and the axe made all men equally tall." With a great continent available for development, dissatisfied and dispossessed individuals could go west and start life anew.

Likewise the great waves of immigration into the United States favored social mobility. These conditions also helped to foster democratic traditions. The Constitution of the United States specifically states that the government may grant no titles to its citizens, nor may officials receive honors from foreign powers without the approval of Congress. Whereas the aristocratic tradition of England is reflected in the advertising slogan: "By appointment to His Majesty," the democratic spirit of America is heralded by the slogan: "Ask the man who owns one."

American social conditions such as those just mentioned have given to the masses a psychology unlike that possessed by the English people. The son of an English laborer has considerably more expectation of following in his father's footsteps than does the son of an American worker. The latter is more likely to have his mind set on acquiring a little capital and becoming an entrepreneur. Thus the sympathies of

[1] F. J. TURNER, THE FRONTIER IN AMERICAN HISTORY (New York: Henry Holt and Company, 1921).

the American workers have not been tied up so definitely with those of their own economic group; evidence of this is the relative weakness of trade unions in the United States as compared with those in England. In England there is a powerful Labor Party, as there is in France and as there was in Germany before the advent of Hitler. In 1932, the Communist Party polled almost six million votes in Germany, but in the United States the best the Workers' Party (Communist) has ever been able to do was in 1931 when it received 80,159 votes.[1]

The concern of the American worker has been not so much to identify himself with his class as to get out of it. A study[2] of the social relation-

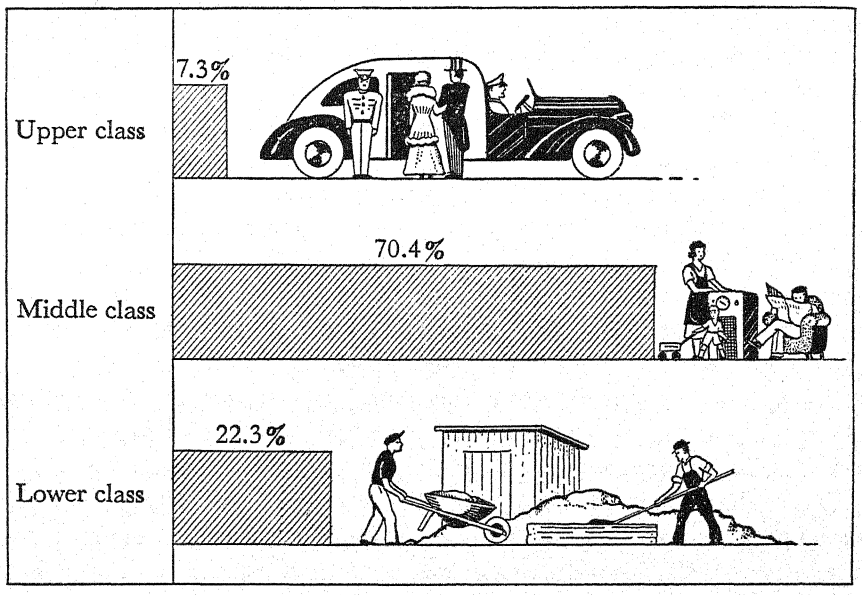


FIGURE 49. THE UNITED STATES SAYS IT IS MIDDLE CLASS

In a recent Fortune Survey 70.4 per cent of the people replying said they thought they belonged to the middle class. This is in striking contrast to the fact that about 50 per cent of the population of the United States has an income of less than $1000. The semi-skilled and the unskilled workers alone make up 46 per cent of the population. The addition of another 14 per cent coming from the ranks of the skilled workers, farm tenants and low-salaried groups, makes 60 per cent. As to the upper class, in 1935 only 2.5 per cent of the population received an income of over $5000 a year. (*Figures in graph from* FORTUNE MAGAZINE, *February, 1940, p. 14.*)

[1] The largest Socialist vote was cast in 1920, when Eugene V. Debs received 919,799 votes out of 26,674,171.

[2] GEORGE LUNDBERG and MARY STEELE, "SOCIAL ATTRACTION-PATTERNS IN A VILLAGE," SOCIOMETRY, 1:375–419, January–April, 1938.

ships of people in a small New England town shows, for instance, that there is incessant social striving; when persons on the lower social levels were asked to name their friends and acquaintances, they indicated people who were above them socially. Indeed, so anxious are Americans to rise in the social scale that they either do not know what social class they belong to, or will not admit it. One of the Gallup polls [1] asked this question: To what social class do you belong? The great majority answered that they belonged to the middle class, only about 6 per cent stating membership in the lower class. Gallup, in commenting on these replies, compares them with the results of the study of consumer incomes in 1935–36, which showed almost 60 per cent of American families have incomes under $1250.

In his celebrated study of American life and government, Lord Bryce [2] took note of the fact that American classes differed from those of his own country. He found that American classes were much less distinct. "Their specific characters, as a naturalist would say, are less marked even in typical individuals than would be the case in Europe, and are in many individuals scarcely recognizable." He comments on the fact that the wives and daughters of workingmen dress with so much taste that "on Sunday . . . you would take them for persons in easy circumstances." Indeed, the workingmen themselves can often not be distinguished by their dress from persons in better positions. Bryce was also impressed by the fact that the American shopkeeper "has not the obsequiousness of his European congener, and is far from fancying that retail trade has anything degrading about it."

As for the upper American class, Bryce noted that it had no cultural ties comparable with those which bind the English aristocracy together. There is in the United States no one class whose special business it is to form and lead opinion, and much less is there any governing class, such as is found in England. The upper class in America is not unified by common ideals and standards of behavior. The railway fortunes of the Harrimans and the Vanderbilts have been succeeded by the automobile fortunes of the Fords and Chryslers, and the movie millions of the Goldwyns and Loews. Such individuals have no cultural ties comparable with those which bind the English aristocracy together.

[1] CHICAGO DAILY NEWS, April 3, 1939.

[2] JAMES BRYCE, THE AMERICAN COMMONWEALTH (New York: The Macmillan Company, ed. 1921), p. 293 ff.

FUTURE OF SOCIAL CLASSES IN AMERICA

In what direction are social classes tending in this country? Does the situation described represent something of a cultural lag? It is, of course, possible for a class to be marked by common characteristics and to hold a distinctive position vis-à-vis other classes without being conscious of the fact. Are class lines tightening, and if so will class consciousness increase as the realization of this grows? Will the American worker realize that his ambitions are forlorn, even fantastic, and like the English worker more and more cast his lot with his own kind? And as for the upper class, despite their present cultural uncongeniality, are they not unified in economic outlook? Given as much time as the English aristocracy has required to develop its culture and morale, will not the cultural cohesion of the upper class in America also come, as elite traditions, rituals, and institutions are evolved?

Increasing rigidity of classes. Gone are many of the social conditions that gave us open classes. There are now no new geographical frontiers, immigration has been checked, and in general a larger amount of capital is now required than formerly to establish a new business. Evidence from a number of sources suggests that it is becoming more difficult to climb up the social ladder. The Lynds [1] report this is the situation in Middletown; the chances of a worker's moving up to an executive or a managerial position were found to be much smaller in 1935 than a decade before. This finding supports that of Taussig and Joslyn [2] that American business leaders are being increasingly recruited from the upper classes. Sorokin has also furnished some suggestive data in a study of the economic starting point of two generations of American millionaires. His data, in Table 11, show that there was an increase in the hereditary transmission of economic status within the group studied. The percentage of millionaires who started their careers poor is twice as high in the deceased as in the living group, while the proportion of those who started rich is almost twice as high in the living as in the deceased group. Supporting evidence of increasing rigidity of social classes comes from still another source, the census of occupations, which shows an increase between 1880 and 1930 in the proportion of "dependent workers" (those working

[1] ROBERT and HELEN LYND, MIDDLETOWN IN TRANSITION (New York: Harcourt, Brace and Company, 1937), pp. 70–71. See also Chapter XII.

[2] F. W. TAUSSIG and C. S. JOSLYN, AMERICAN BUSINESS LEADERS (New York: The Macmillan Company, 1932), chaps. x and xi.

TABLE 11. ECONOMIC STARTING POINT OF AMERICAN MILLIONAIRES [1]

Generations of the Millionaires	Started Life Poor		Started Life Neither Poor nor Rich		Started Life Rich		Total	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Deceased generation.....	111	38.8	90	31.5	85	29.7	286	100.0
Living generation.....	72	19.6	102	27.7	194	52.7	386	100.0

for others, as farm laborers, industrial wage-earners, servants, and the lower-salaried workers) and a decrease in the proportion of "independent workers," farmers, proprietors, officials, and professional men. The first group increased from 48.5 per cent in 1880 to 62.2 per cent in 1930, while the second group decreased from 43.3 per cent in 1880 to 32.4 per cent in 1930.[2] When the data for the separate units in each series is examined, however, it appears that the decrease in the relative size of the independent groups is entirely a decrease in the farmer group, which declined from 34.9 per cent in 1880 to 15.8 per cent in 1930. Proprietors and officials increased from 4.6 per cent to 8.7 per cent, and professional people from 3.8 to 7.9 per cent. The increase in dependent workers is largely accounted for by the phenomenal expansion in the proportion of lower-salaried workers (especially clerical workers) from 3.0 per cent to 14.6 per cent. Wage-earners declined from 37.9 per cent to 30.4 per cent, servants from 6.2 per cent to 4.1 per cent, and farm laborers from 8.9 to 5.6 per cent. The white-collar class of persons engaged in clerical and kindred pursuits is expected to grow and constitute, in the not far-distant future, at least one fifth, if not one fourth, of all gainful workers. While in the past white-collar work has been for many only a stepping-stone to managerial, proprietary, and professional pursuits, Edwards [3] is of the opinion that the rapidly increasing qualifications for entering the professions and the present unemployment of large numbers who are already trained portends the tightening of class lines with the passing years.

[1] P. SOROKIN, *op. cit.*, pp. 464–65. Reprinted by permission of Harper and Brothers.

[2] A. H. HANSEN, "INDUSTRIAL CLASS ALIGNMENTS IN THE UNITED STATES," JOURNAL OF THE AMERICAN STATISTICAL ASSOCIATION, 17:417–25, December, 1920; T. M. SOGGE, "INDUSTRIAL CLASSES IN THE UNITED STATES IN 1930," *ibid.*, 28:199–203, June, 1933.

[3] ALBA M. EDWARDS, "GROWTH AND SIGNIFICANCE OF THE WHITE-COLLAR CLASS," AMERICAN FEDERATIONIST, 43(1):1–3, January, 1938.

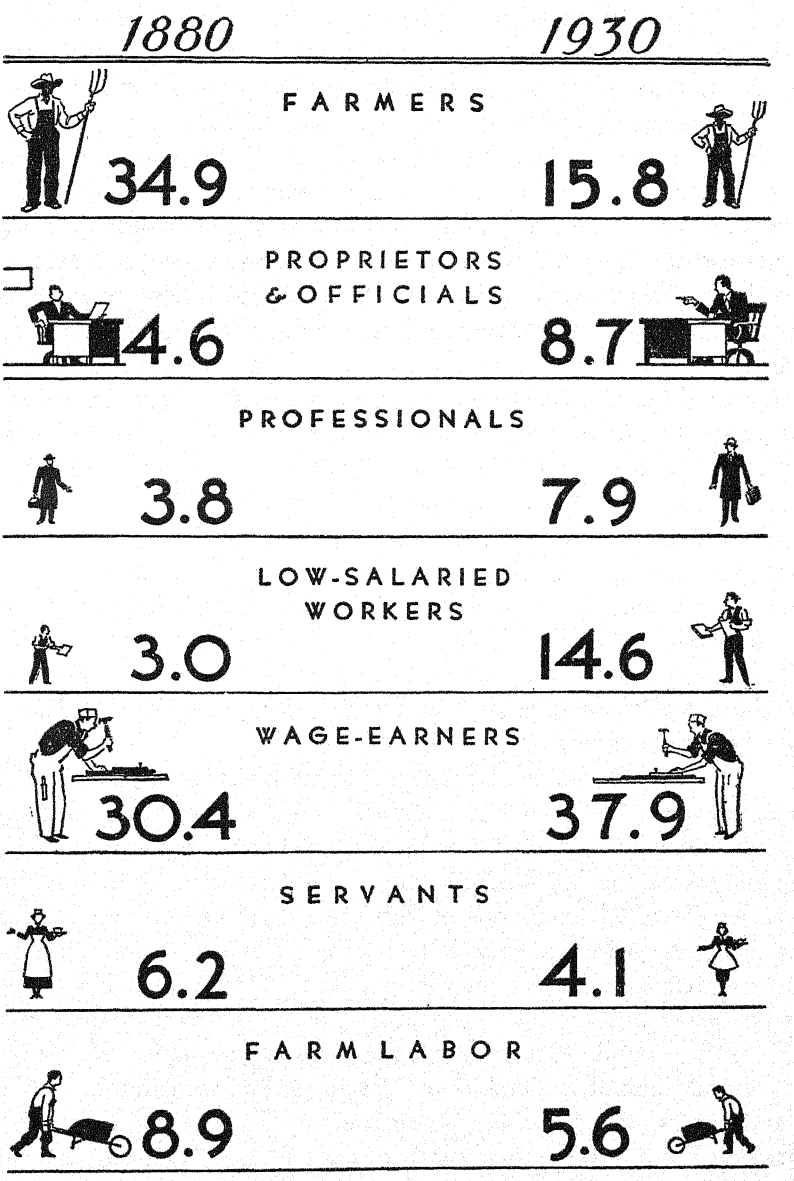


FIGURE 50. OCCUPATIONAL SHIFTS, 1880–1930

During this period the United States moved further from an agricultural economy toward an industrial economy, which was accompanied by increases in industrial wage-earners and other "dependent workers." It is predicted that the increases in lower-salaried clerical workers will continue. (*Based on data from* T. M. SOGGE. *The miscellaneous classification is not included in the chart, hence the columns do not total 100 per cent.*)

What is the situation in agriculture? Statistics on land tenure go back for 55 years, during which time there has been a continuous and marked decrease in the proportion of operating owners and a corresponding increase in the proportion of tenants. While 25 per cent of all farmers were tenants in 1880, the number had grown to 42 per cent by 1935. Besides, the equity of operating owners is much less than these figures indicate. In some states, including a number settled under the homestead law only a little more than a generation ago, it is estimated [1] that the equity of operating farmers in their lands is little more than one fifth; landlord and mortgagers hold the rest.

Tenancy has been rationalized by some as a necessary part of the agricultural ladder theory, according to which the inexperienced farmer has first to be a laborer and tenant in order to acquire the experience and capital for which ownership calls. That this theory is unrealistic can be shown by the data on the age of tenants. According to the theory, the tenants should be the younger men, and they should become operating farmers as they grow older. But the number of tenants over 55 years of age has been increasing for several decades, there being about 375,000 such tenants in the United States in 1935, with nothing more in the way of home and security than when they started. "The agricultural ladder for these American citizens," writes President Franklin D. Roosevelt, "has become a treadmill."

Is class consciousness increasing? Some observers believe that class consciousness is also on the increase.[2] As was indicated above, the growth of class consciousness definitely lags behind the growth of classes and the tightening of class lines. Doob [3] reports that the poor whites he interviewed, while conscious of the caste division between themselves and Negroes, were not especially aware of any class affiliation which they might have with one another. Locally they were tied together by certain emotional ties, but the feeling of sympathy extended only to acquaintances and did not include poor whites generally. This situation may reflect lack of leadership and organization more than lack of class consciousness, for elsewhere sharecroppers have organized a Tenant Farmers' Union, and the strength of class feeling involved is suggested by the fact that whites and Negroes have organized together in contra-

[1] SPECIAL COMMITTEE ON FARM TENANCY, FARM TENANCY (Washington: Government Printing Office, 1937). Prepared under the auspices of the National Resources Committee.

[2] A proof one way or the other can hardly be expected here. Class consciousness is much less tangible than class membership, and is not so readily subject to measurement.

[3] JOHN DOLLARD, *op. cit.*, Appendix.

vention of caste taboos. Also the unemployment of millions of workers since 1929 and the government programs in their behalf have served to quicken a "consciousness of kind" among the "have-nots." Wage-earners are also being educated to a sense of their common interests by the Congress of Industrial Organizations and others. In 1933 we witnessed the spectacle of American farmers resisting mortgage foreclosures at the point of guns.

The conflict of big business and labor unions has at some points taken the form of organized combat.[1] Criminals have been drawn into the struggle, mobilized by detective agencies and hired out by the hundreds to corporations to protect their property and scabs, and to attack strikers and strike-organizers, while labor unions have retaliated by hiring professional strong-arm men to beat up strikebreakers and sabotage production. In some cases, powerful industrialists have declared open warfare on labor unions, leading to mass murder of workers.[2] The intensity with which big business opposed the New Deal, the anti-administration activities of the Liberty League, and the resultant dubbing of these captains of industry as "economic royalists" by President Roosevelt are additional indications of how far the class struggle has gone in this country.

SOCIAL CLASSES AND SOCIAL CHANGE

While such factors as those mentioned above operate to increase class consciousness, there are other forces at work which exert a counter-influence. Outstanding is the part played by social change, a major phenomenon of our times. The point to be made is this, that it is easier to maintain class distinctions in a static or slowly changing society like India's than in one like our own, which is changing rapidly.

Social change takes a number of forms, one of which is the circulation of individuals from one region to another and from one section of a community to another. Physical mobility is pronounced in the United States. Even as early as 1900, only 68.3 per cent of the American population resided in the state of their birth, while a census taken in India about the same time showed more than nine tenths of the population living in the districts where they were born.[3] In 1930 the proportion of

[1] LOUIS ADAMIC, DYNAMITE, 1931.

[2] For accounts of such terrorism in the Little Steel Strike of 1937, the Harlan County, Kentucky, coal field, and elsewhere, see the reports of the United States Senate Committee on Civil Liberties (76th Congress, 1st Session, 1939).

[3] CENSUS OF INDIA 1901 (Calcutta: Office of the Superintendent of Government Printing, India, 1903), vol. 1, pp. 88–89.

the population living in the state of their birth was 67.3. The effect of pronounced physical mobility is to produce strangers, for people living in the same apartment house in a modern city often do not know one another.[1] To which social class do these people belong? To answer this question accurately calls for knowledge of their family background, knowledge which we may not possess. In modern cities countless people even marry without first-hand knowledge of the family background of their mates.

Another way in which modern culture affects class is through the marvelous development in the field of technology and the correlated mass-production system. The effect of these developments is to blur, and in some cases obliterate, the earmarks of class. Lord Bryce's observation on this point was cited earlier in this chapter. Thanks to Hart, Schaffner and Marx, a call boy on Wall Street cannot by his clothes be distinguished from J. Pierpont Morgan. And if this call boy should go, as he can, to a college at public expense, the cultural differences would be still further reduced.

Moreover, the economic classes no longer live in isolation where individualistic traits are nourished, for the effect of modern communication inventions is to break down the barriers between groups. The radio brings to all classes the upper-class culture of the opera, the Wimbledon tennis matches, and the religious services of the fashionable churches. It would be a mistake, of course, to think that inventions do not also create class distinctions, when as at present, the elite are the only ones likely to have private planes and air-conditioned homes. But details and exceptions aside, it is clear that social classes are fostered by stability of social conditions, the perpetuation of things as they are. Rapid social change like that of modern society is hostile to class organization, which depends on the maintenance of a formalized, established social order.

Social classes and nationalism. Another social force today stemming the tide of class consciousness is nationalism, which may be regarded as an outgrowth of modern cultural change. The welding together of separate units of a people is due in part to modern methods of communication and transportation which break down the barriers between local communities and make possible the effective administration of larger areas.[2] Today the more limited allegiance to class is being swal-

[1] For fuller treatment of this point, see Chapter XVII, "Characteristics of Communities."

[2] See Chapter XIV, "Human Ecology," for fuller development of this point. At one time the Bourbon kings did not address their subjects as Frenchmen but only as Gascons, Bur-

lowed up in the larger wave of devotion to the nation. Communists say this is an upper-class technique of control, a tool being used to keep the working classes in subjection. Communists constantly refer to the class movement as the Internationale. Nationalism, they say, is an opiate which lulls workers into unawareness of their own interests; and fascism, which in theory commands the subordination of the interests of separate classes to the interests of the state, is said to be only a desperate resort on the part of frightened capitalists to bolster a tottering economic system.[1] The middle class is won over to the support of the totalitarian state. When this is accomplished, the lower classes are deprived of whatever little organized strength they have hitherto achieved; banished are labor unions and gone is the right to strike.

Communism, to be sure, turns the tables so far as partiality to the economic classes is concerned. But it is doubtful if communism is immune to the influences of nationalism. The 1937 Chinese communists ceased fighting the other classes in China when their country was threatened from without and made common cause against the Japanese. In 1939, many thousands of French Communists severed their connection with the Communist Party and hence with their comrades in Russia, when that nation moved against Poland and Finland. In Russia, Trotsky followed Karl Marx in advocating a world crusade in behalf of the proletariat, but he split with Stalin on this point and was banished from Russia. Stalin favored building up the nation first and instituted the five-year plan for the development of Russian resources. Present Russians appear to be quite nationally minded. However these things may be, modern nationalism is clearly acting as a curb to the growth of class consciousness.

gundians, and the like. Germany at one time was divided into 300 separate states, often in conflict with one another.

[1] Cf. JOSEPH BARNES, "THE SOCIAL BASIS OF FASCISM," PUBLIC AFFAIRS, 9:24–32, March, 1936.

SUMMARY

This chapter has been concerned with the factor of social status in human life. The position of individuals within a society may differ, a significant fact because differences in status are attended by inequalities in opportunities, privileges and duties, which greatly affect individual welfare and happiness. Like all complex social phenomena, status is affected by many factors, such as age, sex, and intelligence. Particularly significant as a determinant of status, however, is the factor of social class.

Although social classes are common, it must not be thought that they are universal. Indeed, they are lacking in most primitive societies. It is difficult to develop social classes in a very small, homogeneous population. Large numbers provide a better basis for differentiation, as does also the co-residence of racially dissimilar peoples. A considerable development along economic lines is also favorable to class formation, for then the rich can set themselves apart from the poor and perpetuate the inequalities between them. Particularly significant is the fact that social classes thrive on a slow rate of cultural change.

Special interest attaches to the question of social mobility, that is, the chances individuals have of changing their status in a given society. It has been shown that the local culture determines whether few or many will be allowed to ascend the ladder, mobility being reduced to a minimum in highly stratified, caste societies. But even where open classes prevail, the great mass of individuals remain in the class into which they are born. The idea that opportunities are open equally to all individuals of equal ability must be regarded as a fantasy.

The United States, long regarded as a country of open classes, is now the scene of conflicting forces. There is evidence to suggest that, with the disappearance of the frontier, class lines are tightening. Class consciousness, however, lags far behind, due to such factors as the entrepreneur aspirations of American workers, the democratic tradition, and the force of nationalism. Class consciousness in America has so far not been sufficient to lead to any substantial class organization.

QUESTIONS FOR DISCUSSION

1. Does one have a generalized social status in society, or a number of different statuses in separate groups? Elaborate.
2. Which would appeal more to you, status as a scholar or as a member of the upper class? Why?
3. How do (*a*) biological factors, (*b*) cultural factors, affect social status?
4. How are the chances of one's going to college affected by one's social-class status?
5. What is the practical significance of class distinctions?
6. What advantages, what disadvantages, can you see in a caste system?
7. What, precisely, are any one child's chances of becoming president of the United States?
8. How is the American caste system different from that of India.
9. What obstacles stand in the way of defining the membership and size of social classes with exactness?
10. Why does the American trade unionist aspire more than the British worker to become an entrepreneur?
11. Are class lines tightening in the United States? Elaborate.
12. Why is it more difficult to describe the trend regarding class consciousness than that regarding stratification?
13. What factors in the United States today operate against an increase in unification of the upper class? What factors favor it?
14. How does the spirit of nationalism militate against the growth of class consciousness?

TOPICS FOR REPORTS

1. A comparison of the significance of class distinctions in urban and rural communities in the United States.
2. Social stratification on a college campus.
3. Social position in a pioneer community.
4. Growth of farm tenancy in the United States.

5. Social stratification in an African preliterate society.
6. An evaluation of Karl Marx's doctrine of the class struggle.
7. Thorstein Veblen's theory of the leisure class.
8. The social status of American white-collar workers.

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XII. CO-OPERATION, COMPETITION, AND CONFLICT

SAMUEL BUTLER once observed that our experiences with others partake of the nature of either a string or a knife; they bind us closer together or they cut us apart. This is only a picturesque way of saying that in all group life both unifying and divisive forces are operative. People marry and are divorced, work and strike, form religious brotherhoods and engage in sectarian strife. Indeed, the social organization of a community at any given time represents the balance struck between these centripetal and centrifugal forces.

It is these on-going tendencies in group life, these fundamental ways in which men interact, to which the name social processes is applied. When men work together for common goals, their behavior is called co-operation. When they strive against one another, their conduct is labeled opposition. Co-operation and opposition are the two basic processes of group life.

There are a number of questions which arise when co-operation and opposition are considered. Since these processes appear in all group life, clearly heredity has something to do with causing them. What precisely does heredity contribute? It is evident as well that co-operation and opposition are not everywhere the same. The divorce rate is lower in Sweden than in the United States. The Swedes co-operate more than Americans do along economic lines; witness the striking development of co-operatives among them. North Americans, in turn, show more co-operation along political lines than do Latin Americans, among whom governmental upheavals have been frequent and violent. Again, the opposition of labor and capital as evidenced by number of strikes is more pronounced in France than in the United States, while Negro-white relations are more harmonious in France than in America. Examples of such differences from society to society could be multiplied without end. Clearly cultural considerations, too, are involved in determining how the social processes work out in a given society. How does culture function in this connection? The present chapter is concerned essen-

tially with answering these questions. Before undertaking to do this, however, it is necessary first to define and clarify the terms of our discussion a little more fully.

The Nature of the Social Processes

CO-OPERATION

One form which co-operation takes is called labor in common. Here the co-operating individuals all do essentially the same thing; that is, perform identical functions like moving a pile of stones or pushing an automobile out of the mud. When this common labor is carried on merely for the pleasure the individuals get out of working together, it is referred to as companionable labor. An example would be the situation among the Iroquois, who had abundant food, so did not need either to co-operate or compete with one another to secure it. "But even though the women could tend the fields alone, they 'co-operated' to secure the added pleasure of each other's company." [1] When, on the other hand, there is a real advantage in having assistance at a task, as in getting a car out of the mud, the mode of co-operation is designated supplementary labor. Finally, there is integration of differentiated labor. This exists when individuals work toward a common end but each has his own specialized function to perform, as is the case, for example, when carpenters, plumbers, and masons co-operate to build a house.

The foregoing distinctions, although employed by economists, have not been utilized significantly in sociological studies. In the first place, the study of co-operation has been slighted by sociologists, their attention having been given largely to the phenomena of opposition. Because of our highly competitive society, sociologists are under considerable compulsion in their selection of subject matter, although perhaps largely unwittingly so. They are competition-conscious. Another explanation is that the approach to the study of co-operation is as a rule made indirectly through the study of conflict, as when conditions of marital adjustment are inferred from the study of marital maladjustment, and the conditions of mental health deduced from the study of mental conflict. The picture of co-operation can be drawn in clearer detail if the two processes are considered together than if each is treated separately; hence, in this chapter co-operation is discussed in relation to opposition. The greater attention which sociologists have given to the

[1] Mark A. May and Leonard W. Doob, competition and co-operation, p. 99.

latter process, however, is manifest in our fuller understanding of its various forms. These forms are competition, rivalry, and conflict.

COMPETITION

Competition is the most fundamental form of social struggle. It occurs whenever there is an insufficient supply of anything that human beings desire — insufficient in the sense that all cannot have as much of it as they wish. In other words, the basic terms of competition are "a population of insatiable wants and a world of stubborn and inadequate resources." [1] In our society, for example, there are more people who want jobs than there are jobs available; hence there is competition for available places. Among those who already have employment there is likewise competition for better posts. There is thus competition not only for bread, but for luxuries, power, social position, mates, fame, and all the other things not available for the asking.

An incessant struggle for these satisfactions goes on in our society. But strangely enough the struggle is for the most part not personalized. Students, for example, do not conceive of their classmates as competitors, even though it is true that there are only a certain number of honors available, and if certain members of the class get them, the honors are automatically denied to the others. Students may be vividly conscious of the competition and much concerned about grades. It remains competition just so long as their attention is focused on the goals for which they are striving. When there is a shift in interest from the objects of competition to the competitors themselves, rivalry results. Rivalry is personalized competition. A wishes not only to win the prize but to beat B. Each knows that he can win the prize only by defeating the other. When personalized in this way the competition tends to become more keen, and hostility between the competitors is easily engendered. As a consequence antagonistic competition, or social conflict may develop. The ultimate object or "logical extreme" of all conflict is the elimination of the competitors.

THE COEXISTENCE OF SOCIAL PROCESSES

When the processes are defined separately and in turn, as above, there is danger that the reader may develop an unrealistic conception of them. Unfortunately, a number of erroneous ideas concerning them are quite

[1] WALTON H. HAMILTON, "COMPETITION," ENCYCLOPEDIA OF THE SOCIAL SCIENCES, vol. IV, p. 143.

generally held. It is, for instance, mistakenly believed that co-operation and opposition are entirely distinct and unrelated processes. This idea leads in turn to futile attempts to prove that one of the processes is more fundamental than the other. Doubtless in our society competition is popularly conceived to be the more basic process, a view which extends back at least to Heraclitus at the close of the sixth century, B.C.[1] Later, Hobbes taught that struggle is the basic law of life; that earliest man lived in a continual state of warfare, with every man's hand raised against his brother. In this view Hobbes was followed by a long line of philosophers and social theorists, such as Hume, Hegel, Rousseau, and Bagehot. The idea that struggle is all-important was later taken over by the evolutionary school of biologists following publication by Darwin and Wallace of the doctrine of natural selection on the basis of the survival of the fittest. The great vogue of the Darwinian hypothesis was not without influence on social theory. If nature is dominated by conflict, it was held, this must also be true of human nature and human society. The conflict school of sociological theory was thus ushered in, represented by such writers as Ratzenhofer and Gumplowicz.

The idea of a struggle for life in which the fittest survive has come to be regarded as perhaps the greatest generalization advanced in the nineteenth century. While acknowledging this, Kropotkin[2] raised two challenging questions: By which arms is this struggle chiefly carried on; and who are the fittest in the struggle? Kropotkin argued that the struggle is not so much between members of a given species as it is between different species, and most of all, a struggle of all species against adverse circumstances. The idea of competition within a species is overplayed by Darwin, while quite neglected is the fact that co-operation plays a major rôle in survival.

Kropotkin shows how habits of mutual aid within a species are an aid in survival. Mutual aid starts with co-operation in the rearing of progeny and in the provision of protection and of food. Even among the lowest animals, such as the ants and termites, co-operation is evident and constitutes a tremendous force for survival. Among higher animals co-operation is also apparent, as in the migration and hunting associations of birds. Even among birds of prey, co-operation can often be discerned extending beyond the association of male and female for

[1] HARRY ELMER BARNES and HOWARD BECKER, SOCIAL THOUGHT FROM LORE TO SCIENCE (Boston: D. C. Heath and Company, 1938), vol. I, p. 705.

[2] P. KROPOTKIN, MUTUAL AID: A FACTOR OF EVOLUTION.

rearing offspring. Kropotkin cites the case of the white-tailed eagles that have been observed to hunt together in groups of as many as ten. More impressive is the overwhelming numerical preponderance of social mammals over the few non-social carnivores, such as lions, tigers, and leopards. The herds of buffalo on the American plains were at times so dense as to stop for two or three days the advance of parties of westward-bound pioneers. Sheep, deer, antelope, gazelles, and buffalo live in herds. The chief competition, Kropotkin shows, is with nature. There is plenty of food for all, but in the dead of winter it will be buried under snow. Gales, floods, pestilences, and changes of weather are the principal factors against which animal life must reckon. Animals seek to eliminate competition by mutual aid; that is, by forming colonies, and by migration. Kropotkin traces the evolution of mutual aid among human beings and shows how man has so widened the areas of co-operation that he supports various groups that are mentally and physically defective and that would not survive in a tooth-and-claw existence.

It should be observed, then, that co-operation and opposition are natural group phenomena. They occur among animals as well as among human beings. And they often occur together. In this respect they resemble the so-called ambivalent, or linked, emotions of love and hate, to which, of course, they are closely related. The psychologists have shown how these two emotions may coexist in the same individual. A child may love his mother for the satisfactions and pleasures she provides, yet dislike her too because of the discipline she imposes. So, too, co-operation and conflict often go together.

Co-operation as a condition of conflict. Conflict itself may involve co-operation. There may be no conflict unless those who are involved recognize one another as adversaries. In countries where dueling is the custom, an encounter occurs only when a challenge is made and accepted. The one who is challenged may ignore the invitation to fight if he feels the challenger is beneath him socially. Again, intergroup conflict is a potent source of intragroup co-operation, as may be seen in the case of present-day nationalism. The mutual distrust and hatred of the French and Germans, among others, contribute in no small way to the intense group solidarity to be found in these nations.

It is difficult to exaggerate the part that external struggle plays in consolidating a group internally. Nothing has done more in recent years to unite the Jews than the revival of anti-Semitism on a large scale. Such anti-Semitism has converted the utopian Zionism of the nineteenth

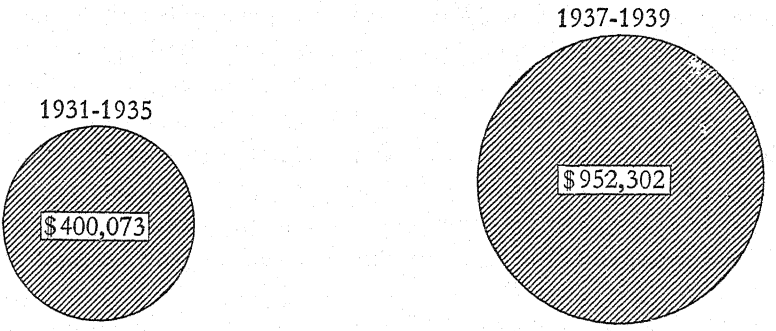


FIGURE 51. CONTRIBUTIONS TO THE ZIONIST CAUSE BEFORE AND AFTER THE ADVENT OF THE HITLER REGIME

Conflict between two groups tends to heal up differences within a group and to lead to greater group loyalty. The area of the circle represents the size of the contribution. Figures from the receipts of the Keren Hayesod Head Office.

century into a powerful nationalistic movement with an organized, practical program.[1] So, in several ways, conflict may involve co-operation.

Competition as a condition of co-operation. Likewise, the situation may be reversed and individuals may compete in order better to co-operate. An example of competitive co-operation is a scientific organization, like the British Royal Society or the American Geographical Society. Groups of members work together to further the search for truth, but they do this by checking up on one another's work. Ideas not sufficiently supported by evidence are challenged. In the same way the workers of Soviet Russia have been urged to compete with one another in the interests of the co-operative commonwealth. The factories belong to the state, so theoretically the greater the volume of goods produced, the greater the benefits to all the workers. The workers are urged to compete with one another so that the total output may be increased, and all may be benefited. While piece rates and differential wage rates have been introduced to spur production, output has also been increased by the use of socialized incentives, such as rivalry between productive units of an industry. These examples show how mistaken are those who attribute natural priority to either process.

The utopian communities. A great deal of light is thrown on this matter by the experience of utopian communities. There have been a number of such projects, such as Brook Farm, Hopedale, the Hutterische

[1] LOUIS WIRTH, THE GHETTO (Chicago: University of Chicago Press, 1929), pp. 271–72.

Brüder, Oneida, and New Llano. These experiments were undertaken by individuals who believed that co-operation was both more basic and more desirable than conflict. They sought to rule out all conflict from society, or at least to eliminate it entirely from important areas of life, such as the economic and the familial. That they met with failure is history. In part, no doubt, the failure was due to the fact that it was impossible to keep out "contaminating" influences from the larger competitive society; but it is also true that competition and internal dissension played a part as well.

The experience of Brook Farm [1] may be used to illustrate utopian enterprise. Brook Farm was started in 1840 by George Ripley, a Unitarian minister of Boston and a member of the famous Transcendental Club, which included Emerson, Alcott, and Thoreau. Ripley and fourteen others formed a stock association for the purpose of securing "a more natural union between intellectual and manual labor than now exists"; and to avoid the pressure of our competitive institutions by having all participate in the project according to their talents and receive in return only a fixed return of interest at five per cent on the shares held, the labor of each person to offset the price of board and lodging. An Institute of Agriculture and Education was established, with members working on the farm and teaching in the school. Indebtedness increased apace, partly because of the expenses occasioned by the normal expansion of farm facilities and partly because of poor financial management. Four mortgages had been placed on the Farm when in 1846 a fire seriously damaged property not covered by insurance. This started an exodus of members, and the Farm never recovered, being sold at auction in 1847, only a few years after its establishment.

It is difficult to secure accurate information concerning the social life of Brook Farm, but enough is known to show that, while it was characterized by an unusual amount of co-operation and civility, it was not lacking in clashes and cleavages. Ichabod Morton resigned after serving as a trustee for only five months because he felt that sentiment rather than good business judgment governed the practical affairs of the Farm. And Nathaniel Hawthorne, after five months of farm work, asked to be released from the furrows. "Is it a praiseworthy matter that I have spent five golden months in providing food for cows and horses?" he asks in his diary, and answers: "It is not so." Hawthorne was relieved of manual work and given certain executive tasks, but the action, while pleasing

[1] LINDSAY SWIFT, BROOK FARM (New York: The Macmillan Company, 1908).

to Hawthorne, was displeasing to some of the others, who resented the discrimination.[1] Particularly illuminating is a comment made by one of the students in the school, George Curtis. In writing to his father, he said, having the school in view, "No wise man is long a reformer, for wisdom sees plainly that growth is steady, sure, and neither condemns or rejects what is or has been. Reform is organized distrust."

The life in many of these utopian communities was so artificial and restrained that the members often became resentful over the monotony. The situation must have been much like that which prompted William James, after a few days in Chautauqua, to write his son: "The flash of a pistol, a dagger, or a devilish eye, anything to break the unlovely level of 10,000 good people — a crime, murder, rape, elopement, anything would do." On leaving the place, he observed: "I'm glad to get into something less blameless." [2]

These experiences suggest that there is nothing inherently good or bad about either process. The value judgments are created by man himself, and the judgments are not everywhere the same. The Russians glorify their co-operative economy while we sing songs of praise to our competitive system. The Zuni delighted in peace and the Cheyenne in war. Of such contrasting viewpoints the reader will see more below. Here it should be pointed out, however, that to the sociologist social processes are neither good nor bad, only natural. It is natural for men to work hand-in-hand, and it is also natural for man's hand to be turned against his brother. This does not mean that society cannot do a great deal to tilt the balance in favor of co-operation or opposition along important lines. What culture can accomplish will shortly be indicated. But the experience of the utopian communities shows that no society can successfully rule out competition altogether. There seem to be limits to human socialization, and conflicts develop even in the best-regulated societies. The fact that Soviet Russia introduced competitive practices into a fundamentally co-operative economic system attests to the concessions that theory must make to reality if a system is to survive.

Heredity, Group, and Group Processes

It is, then, apparent that both co-operation and competition are common to childhood experience. Babies show both tendencies. The

[1] A. E. Russell, HOME LIFE OF THE BROOK FARM ASSOCIATION (Boston: Little, Brown and Company, 1900).

[2] LETTERS OF WILLIAM JAMES, edited by his son, Henry James (Boston: Atlantic Monthly Press, 1920), vol. II, p. 43.

fundamental feeding process is plainly co-operative, and the baby takes an active part in initiating the process. Later, the baby anticipates the fact that his mother is going to lift him and makes certain postural adjustments that are helpful. Likewise the child co-operates in getting dressed.[1] As for conflict, babies are capable of this behavior too. It will be recalled that Watson found he could make babies angry by restraining them physically. They would resist with an outburst of rage his attempts, for example, to pin their hands securely to their sides.[2] At first the baby resents interference with the free movement of his body. Later the child reacts against interference with the "free movement" of his ego expressed in his ideas, wishes, and behavior.

COMPETITION AMONG CHILDREN

As would be expected, undifferentiated or unconscious competition precedes rivalry; that is to say, very young children compete without being aware of their competitors. A child under six months of age strives for a ball with equal zest regardless of whether it is held by another child, concealed in a box, or is simply outside his reach. At ten months of age he will resist having the toy taken away from him.[3] It is not until about the third year that rivalry becomes evident. At three and four years of age when the idea of self is being developed in children it is nearly universal for them to try to surpass one another.[4] But once rivalry is established it develops rapidly, so that by the sixth year it is characteristic of children generally in our culture. In one experiment, a group of two- to seven-year-olds was urged to compete to see who could build the biggest or prettiest house out of blocks. Among the two- or three-year-olds no rivalry was visible. The three- and four-year-olds seemed only faintly to be aware of particular competitors. Those in the age group from four to six, however, revealed a real desire to do better than the rest; while some of the six- and seven-year-olds carried the rivalry to the point of conflict, manifesting a desire to remove their rivals altogether from the scene of competition.[5]

[1] A. L. GESELL, THE MENTAL GROWTH OF THE PRE-SCHOOL CHILD (New York: The Macmillan Company, 1925).

[2] See Chapter V, p. 144. [3] C. BÜHLER, THE FIRST YEAR OF LIFE (New York: Day, 1930).

[4] GARDNER, MURPHY, A BRIEFER GENERAL PSYCHOLOGY (New York: Harper and Brothers, 1935), p. 452.

[5] P. J. GREENBERG, "COMPETITION IN CHILDREN: AN EXPERIMENTAL STUDY," AMERICAN JOURNAL OF PSYCHOLOGY, 44:221–48, April, 1932. See also C. J. LEUBA, "AN EXPERIMENTAL STUDY OF RIVALRY IN YOUNG CHILDREN," JOURNAL OF COMPARATIVE PSYCHOLOGY, 16:367–79, December, 1933.

COMPETITION AMONG ADULTS

Although for a subject as significant as competition among adults surprisingly little research has been undertaken, several interesting findings are available. Many studies show that competition between groups, or between individuals, brings forth greater effort than does work lacking the competitive element. Competition furnishes motivation in the desire to excel, or to obtain recognition, or to win an award. Individuals work harder in our culture if competing than if working on their own with no thought of rivalry. As between competing against others and working against one's own record, the former is more fruitful. Triplett [1] timed a number of cycle riders under three circumstances — racing around a track behind a pace-setter, racing against one's own best record, and racing against an actual field in competition. He found that the best marks were made in the third type of endeavor.

Another finding is that competitive interest is not so keen in large as in small groups. When one is a member of a large group competing with another large group, he is less efficient than when in, say, a group of two.[2] This supports Whittemore's [3] finding that people generally compete at their best when they have a definite competitor in mind. In this study a group of twelve college students, average age twenty-four, competed in printing with rubber stamps. Competition did not take place evenly among all the members, but rather each student tended to pick out some other student as his principal rival and tried to beat him. It was found, moreover, that active rivalry of this sort occurred between individuals whose ability was nearly the same. The member of the group whose skill most approaches the skill of a given subject is the one who tends to be singled out as the principal rival.

Other studies show that individuals are usually discouraged from making their best effort if they feel that their competitors are much too good for them. Dull students in school who are obliged to match their wits with bright students are likely to give up the game before long. Likewise, bright students find little incentive in competing with dull ones. Moede, in one of his experiments, paired an individual with an inferior

[1] N. TRIPLETT, "THE DYNAMIC FACTORS IN PACEMAKING AND COMPETITION," AMERICAN JOURNAL OF PSYCHOLOGY, 2:507–33, July, 1898.

[2] W. MOEDE, "EINZEL UND GRUPPENARBEIT," PRAKTISCHER PSYCHOLOGIE, II:71–108, 1920.

[3] I. C. WHITTEMORE, "INFLUENCE OF COMPETITION ON PERFORMANCE," JOURNAL OF ABNORMAL AND SOCIAL PSYCHOLOGY, 19:236–54, October–December, 1924; "THE COMPETITIVE CONSCIOUSNESS," *ibid.*, 20:17–33, April, 1925.

rival and then with a somewhat superior one. The individual's efficiency decreased when paired with the inferior rival and rose when matched with the superior one. The optimum conditions for effort seem to be for a person to be matched with someone just a little better than himself. A related observation is that individuals tend to compete actively only in familiar fields; that is, where they feel they are capable. Unfamiliar fields are shunned. If the situation promises success, a person will display competitive spirit and intensify his effort, but if it promises failure, he is likely either to be disrupted or to shift his interest to some other effort which promises success. A student who is good at chess but poor at soccer is likely to seek competition in the former and avoid it in the latter.

Culture and the Group Processes

It is clear that co-operation and opposition are natural phenomena, rooted in heredity, and that they are developed by experience. Individuals do not have to be taught these things any more than animals do. But unlike animals, human beings are born into a world of culture, which is of the greatest significance for them. From birth till death culture impinges on individuals and affects their natural tendencies to strive both with and against their fellowmen. Indeed, culture may modify these tendencies profoundly.

How culture influences the group processes

It may be said that culture determines both the direction and the development of co-operation and competition. The culture stipulates the goals for which individuals will strive. It indicates whether these goals will be approached competitively or co-operatively. It defines the individuals with whom competition or co-operation is permitted, and it indicates which form either process may take. The social processes in human society, then, do not operate naturally as they do among animals, but are subject to a number of pressures and controls.

Since these controls vary from culture to culture, the competitive and co-operative behavior of individuals differs in different societies. While in America there is intense competition to amass wealth and to die rich, the Dakota Indians vied with one another to see who could give away the most wealth in his lifetime. For a Dakotan to die rich was a disgrace. At his death, a man's wife would continue the process of distribution by

giving away not only most of his best horses but most of her own property as well. "When a rich man loses a relative, as a beloved wife or favorite daughter, he sometimes . . . destroys all his property, including his lodge or tent, and kills all his horses, leaving himself utterly poverty-stricken." [1] Again, while in America wealth is striven for competitively, in Communist Russia it is sought after co-operatively. Communist culture frowns on anyone who tries to rise very much above the general economic level.

The individuals with whom one may or may not compete or co-operate are also indicated by the social heritage. Even those societies which show a good deal of co-operative spirit within the group sanction competition with outside groups. The very peaceful and co-operative Zuni, for instance, boasted of cheating the neighboring Navaho, whom they hated. Murder within the group was a serious offense, but murder of a Navaho was a cause for rejoicing. Our own society does not make this distinction, but on the other hand it does not approve of members of the same family engaging in economic competition with one another. The press recently carried a news story about two brothers, one of whom was employed by the other. There was some disagreement between them, following which the employee withdrew from his brother's establishment and set himself up in competition across the street. But he was soon forced out of business by public opinion in the small community, which did not favor direct competition between brothers. In many primitive societies, in-laws are enjoined from co-operating with one another. It is quite common for a mother-in-law and a son-in-law to avoid each other completely; they never speak to each other and when they pass each other, each looks the other way.[2] And among the Kwakiutl, as the reader will shortly see, although intense competition is the rule, only those who are of equal rank compete against one another.

Finally, the form which the basic social processes take in a particular society is also affected by the culture. This may be illustrated by a single example relating to conflict. The French during the past hundred years have had more frequent changes of political government than the English; it has been estimated that whereas there has been a change of ministry in England about every two and one-half years, a change has taken place in France about every nine months.[3] On the surface it

[1] A. G. BRACKETT, "THE SIOUX OR DAKOTA INDIANS," in SMITHSONIAN REPORT (1876), p. 470.

[2] W. I. THOMAS, PRIMITIVE BEHAVIOR (New York: McGraw-Hill Book Company, 1937), p. 214.

[3] P. SOROKIN, CONTEMPORARY SOCIOLOGICAL THEORIES, p. 743.

would seem that the French have more political conflict, but this would be difficult to prove. The difference can be explained on other grounds, namely, the political machinery of the respective countries. The French have a large number of political parties, representing relatively slight differences in point of view. This tends to make for open conflict whenever the delicate balance of the ministry is disturbed by a new issue. The British have fewer parties. What are separate parties in France are only factions within a party in England; differences between factions in English politics are thus often fought behind the scenes, and the country at large is spared the trouble of a cabinet crisis. Conflict may be either covert or overt in form, and political conflict in France is more overt than it is in England. It may be observed, too, that in democracies like France and England, conflict is more overt than it is in dictatorships like Germany and Italy.

CO-OPERATIVE AND COMPETITIVE CULTURES

With the influence of culture on the operation of the social processes so manifest, the question arises: Can cultures be classified as co-operative or competitive? The answer seems to be that in the main this can properly be done. It is possible to say that, with regard to the primary goal toward which individuals in a society strive, they are either co-operative or competitive. In respect to other strivings the story may be different. A people that acts co-operatively to achieve the goal it values most in life may yet compete along other lines. In Soviet Russia the principal goal of striving was the collective state, and to achieve this state there was unusual co-operation. Yet, while there was marked co-operation along economic lines, there was also intense competition in family life, as shown by the unusually high divorce rate. So, too, the Zuni, as will shortly be seen, were very co-operative along economic lines, and highly co-operative in religion, but likewise less co-operative in domestic relations.[1] The Kwakiutl, who may be cited as a highly competitive people on matters of status, nevertheless co-operated in many other respects. Though both co-operation and competition occur in all societies, it is possible to characterize a given people as primarily co-operative or competitive depending on their attitude toward the activity they value most.

[1] The Zuni have matrilocal residence, which means that newlyweds make their home with the parents of the bride. However, when the home situation becomes intolerable, wives run off with their husbands. It is estimated that from five to ten per cent of all wives flaunt tradition in this way. A. L. KROEBER, ZUNI KIN AND CLAN (New York: The Trustees, 1917), p. 105.

In a recent important study, Margaret Mead [1] and several collaborators have undertaken to indicate the major processual emphasis in thirteen societies, all primitive; and even more important, they have sought to account for the fact that some societies are chiefly co-operative while others are mainly competitive. The Kwakiutl of the Pacific Northwest are designated the most competitive and the Zuni of the Southwest as the most co-operative. Before proceeding to a consideration of the factors that may explain this central difference between the two cultures, it would be helpful briefly to describe the two contrasting societies themselves.

Kwakiutl competitiveness. The principal ambition of the Kwakiutl is for prestige. The quest for individual glory is the mainspring of life. In part, prestige depends on rank, and rank is determined by birth. In every tribe there are *numayns*, or groups of families claiming descent from a mythical ancestor; these families are graded in accordance with a scheme supposed to have existed from the beginning. Within each family there are differences in rank, the firstborn becoming a nobleman and all the rest mere commoners. In part, then, rank is determined by the factors of birth and family. In addition, however, individuals fluctuate within a rank according to their competitive skill. Rank must be validated by the distribution of property, by the giving of great feasts during which considerable amounts of valuable candlefish oil and other materials are destroyed, and by the vanquishing of a rival of equal rank. The latter feat is attempted at the famous potlatch ceremony, where a man offers his rival property in the form of blankets and copper plates worth thousands of blankets. The property thus offered must be accepted by the rival and returned with 100 per cent interest within a year, else he is shamed and "flattened" and suffers loss of prestige. So far as the principal goal of Kwakiutl striving is concerned, it may thus be said that it is achieved through the competitive means of self-glorification.

Zuni co-operation. The situation is far different among the Zuni. The principal goals for which they strive are to be well thought of by others and to be ceremonially minded. Both goals are communally or collectively approached rather than individually. The individual is disposed to think in terms of the total group welfare. There is among the Zuni no emphasis on the private accumulation of property. All the men in a matrilineal household work together in the fields, and the food

[1] MARGARET MEAD, editor, CO-OPERATION AND COMPETITION AMONG PRIMITIVE PEOPLES. The chapters on the Kwakiutl and the Zuni are both by IRVING GOLDMAN.

is pooled in a common storehouse. Should wealth be accumulated by someone as the result of special circumstances, it is redistributed at the winter festival of the Shalako, for the collective good; that is, to win the favor of the gods for the group as a whole. If a Zuni wishes to build a house, he must store away much grain and increase his herd in order to feed not only the members who aid him but the whole village at a special ceremony when the construction is completed. In this new home many of his relatives may live with him. If conflict ensues and he decides to leave, he cannot lay claim to the house or to the abundant stores of grain he has laid away. It is much the same with other things. Personal property of land may be recognized, but everyone in the village has the right to farm it. A person may have in his possession hundreds of ceremonial objects and masks, yet they represent no value to him whatsoever if the whole village does not freely use them. The same applies to food, clothing, and even hunting fetishes. Individual ownership has value in so far as it gives benefits to the whole membership.

Here the Zuni contrast with the Kwakiutl. Among the Kwakiutl, individualism in religion is rife, as indicated by the fact that a man gains prestige because of his ceremonial prerogatives. He has a vested interest in them, and they may not be exercised by anyone else as long as the owner lives. The Kwakiutl accordingly resort to murder on occasion in order to appropriate another man's honors. Among the Zuni, all religious ceremonials are collective. There is no individual communing with a guardian spirit as among the Plains Indians. The mass rhythm of the masked *katcina* dances will bring rain. When the priests go into kivas, the ceremonial houses, they go in groups. The principal interest of the Zuni is religious. It occupies most of the time of the adults. It is a co-operative interest.

Social values and group processes. Why are some societies essentially co-operative and others competitive? Perhaps it would be well first to suggest what factors are not responsible for this difference. Contrary to expectation, there seems to be no significant correlation between the technology of these people and their major processual emphasis. The Mead study found that it did not seem to matter whether the people were hunters or agriculturalists. There were co-operative and competitive societies on both levels. The co-operative Zuni are agriculturalists, but so are the competitive Ifugao. The competitive Kwakiutl and the co-operative Dakota are hunters. Likewise, the well-nourished societies were in both camps. Subsistence level is not directly rele-

vant to the question of how co-operative or competitive a society will be.

What things do seem to determine whether a society will be essentially co-operative or competitive are its structure and its ideals. As for structure, it is frequently stated that stratification in a society lessens competition. This is true, but only in a limited way. Competition is restricted where there are closed classes, but only as between different classes. Within a particular class the rivalry may be intense. It will be recalled that the potlatch competition in Kwakiutl society, a highly stratified society, existed only between equals, yet the competition was so keen and occupied such a large place in the consciousness of the people that the society was rated as highly competitive. Far more important than structural considerations are the group valuations themselves — what Thomas calls the "definitions of situations," and the most important definition of all would seem to be the prevailing idea of what constitutes success. As the reader has seen, the Kwakiutl and the Zuni have greatly differing conceptions on this point.

COMPETITION AND CONFLICT IN AMERICA

What do we find in the United States? We cannot be certain, for it is difficult to see one's own culture in proper perspective, but there does seem to be rather general agreement as to the essential competitiveness of American society. The primary goal of human striving in this country is to get to the top in one's chosen vocation. Progress along this line is generally gauged by the amount of money one earns. The American idea of success is thus definitely individualistic. Although in recent years the idea has been somewhat modified, the doctrine of rugged individualism still prevails. It is believed that individuals will work hardest if they are rewarded in proportion to what they produce individually. Society as a whole is presumed to benefit as the result of the greater production of goods. The masses of Middletown still believe that "competition is what makes progress and has made the United States great." [1] "Modern culture is economically based on the principle of individual competition. . . . From its economic center, competition radiates into all other activities and permeates love, social relation, play. Therefore competition is a problem for everyone in our culture." [2]

[1] ROBERT and HELEN LYND, MIDDLETOWN IN TRANSITION (New York: Harcourt, Brace and Company, 1937), p. 409.

[2] KAREN HORNEY, THE NEUROTIC PERSONALITY OF OUR TIME (New York: W. W. Norton and Company, 1937), pp. 284, 188.

Educational objectives a reflection of prevailing social values. One of the best ways to discover the goals in a society is to examine its educational setup. The group is always interested in transmitting its ideals to the young, for only in this way can the group standards be preserved. When the totalitarian governments were established in Russia, Germany, and Italy, one of their first objectives was to win over the children to the cause. The educational organization is the chief means by which this is accomplished. When, therefore, the school system in America is examined, it is seen at once to reflect the competitive spirit of the culture as a whole. The "spell-down" is sufficiently common and popular in our country to be taken as a symbol of our values in education. In the school one finds very little emphasis indeed on serving the class as a whole. The "progressive" schools have encouraged common projects upon which all co-operate, a confession that this is not our traditional practice. More usual is the plan of having each child work by himself, and in his own interests. The better students do not help those that are deficient, but rather depend for their superiority on the inferiority of the others. Each child is pitted against all the others. As in the larger society, there is intense competition to make the grade, at the very least, and, if possible, to win honors.

Experimental evidence of our predominant competitive interest. There are a number of experimental studies which show that our culture, operating in part through the schools, builds up an intensely competitive spirit in the young. One of the most extensive of these researches [1] studied the relative strength of competitive and co-operative tendencies in 1538 children ranging from the fifth to the eighth grades, and from eight to seventeen years of age. The task to which they were put was adding one-place numbers. Fifty-six combinations were constructed and presented as 4000 examples in ten booklets. Five different conditions of work were set up: a situation in which practice was the only incentive; a situation in which individual prizes were given to the most rapid workers; one in which the prize went to the group working most rapidly; one in which the pupils were allowed a choice between individual and group motives; and finally, a situation in which the immediate and continuous effects of motivation were measured.

The results showed that these children worked more efficiently for self than for the group. The curves of work for self ascended, while those

[1] J. B. MALLER, CO-OPERATION AND COMPETITION — AN EXPERIMENTAL STUDY IN MOTIVATION (New York: Teachers College, Columbia University, 1929).

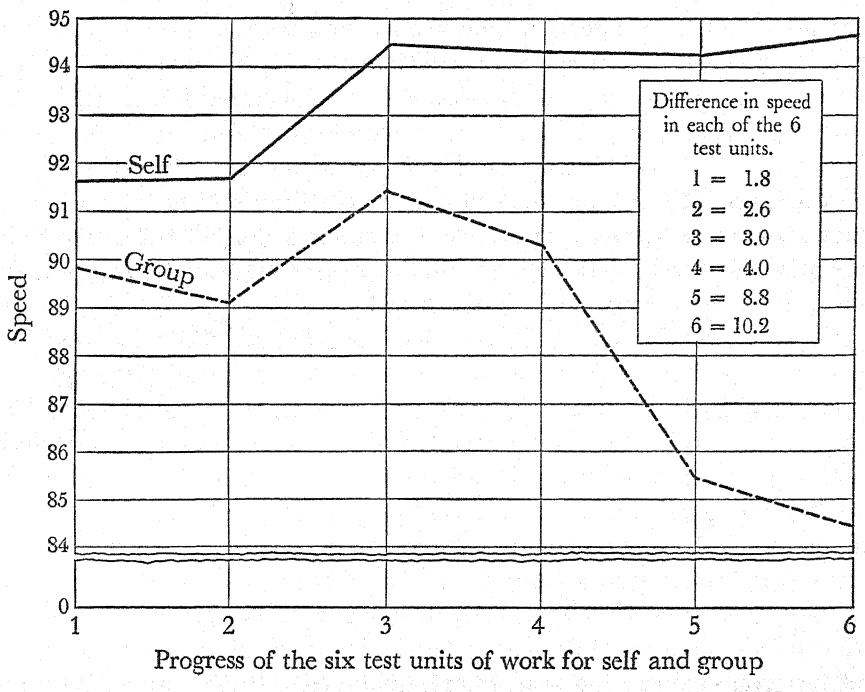


FIGURE 52. THE EFFECT OF COMPETITION UPON SPEED

When the children worked for themselves in competition with other members of the class, their speed was always greater than when they worked as members of the class with no idea of competing among themselves. The speed was much more sustained as new tests were added when they worked for themselves than it was when they worked for the honor of the group. Individual competition is a great spur to activity. From MALLER, CO-OPERATION AND COMPETITION, *p. 25 (New York: Columbia University Press).*

for the group descended. Unmotivated work was the slowest of all, as would be expected. The girls were more co-operative than the boys, an interesting commentary perhaps on the differential valuations and pressures of our culture for the two sexes. The maximum amount of co-operation occurred in groups of considerable homogeneity, suggesting perhaps that co-operation is easier to achieve in a homogeneous society than in a heterogeneous society like ours. But for our purposes here, the principal finding was that when the children were given a choice between working for themselves or for the group as a whole, the former was chosen three times as often as the latter.

Competition, co-operation, and personality. We are so thoroughly conditioned to our own highly competitive culture that we regard it as the only natural and proper kind of society. We cannot see how co-

operation can be as effective a motive as competition. But an analysis of these two processes in terms of their foundations in human personality throws a different light on the problem. In competition the drive is will-to-power, or, in Thomas's terms, "wish for recognition." Competition permits one individual to feel superior to another. Competition is also tied up with the wish for security, at least in a society such as ours, that does not guarantee that no one shall starve so long as others have an abundance. People compete to obtain present security and to protect themselves against insecurity in the future.

Competitive striving also gives expression to the desire for new experience, since there is something of the quest, the contest, the age-old hunting pattern in matching one's wits and strength against those of others. Long after security has been assured, many persons in our society continue to compete for the fun of it. Competition, then, has a strong underpinning in human nature. But co-operation with others to achieve a common good is also strongly satisfying to personality. Much depends, of course, on the group valuations. If, as among the Zuni, the group strongly approves of co-operation, then a person will get group recognition by co-operating fully with others. Recognition is always in terms of the group values, and in a co-operative society, the desire for recognition will be best satisfied by those who co-operate best, for they will be the ones to receive the group esteem. The drive for security is more likely to be satisfied in a co-operative society than in a competitive one, because of the protection the former supplies. If a man is hungry, he helps himself from the common store. Moreover, an individual in such a society is protected a good deal more against the humiliation of defeat. Striving to surpass others, as in our society, may lead to glory, but it may also lead to ignominious failure.

Finally, the desire for response or affection is better satisfied by co-operative than by competitive striving. People like us better when we work with them and for them than they do when we surpass them in competition. As was pointed out in an earlier chapter,[1] part of the price we pay for our competitive society is a great loss of love and friendship. Generally speaking, then, a co-operative society caters largely to the security and response wishes of individuals, while a competitive society gives more expression to the desires for new experience and recognition. But as Mead has shown, a strong ego development occurs in both types of societies and is not, as is so often thought, dependent on competition alone.

[1] Chapter VIII, "Personality Disorganization."

Where, as among us, individuals struggle against one another not only for luxuries and honors but for the very necessities of life, competition easily leads to tension and tension to conflict. The fact is that individuals have little sense of security in our culture. Millions have no jobs at all. Many millions more do not earn enough to be able to build up a surplus which will sustain them against emergencies. "Workers have three basic fears: fear of losing the job; fear of loss of earning power through illness or accident; and fear of a penniless old age." [1] Even those who are more successful in the economic competition may feel none too secure. Wealth may easily be lost through poor management or investment. Since there is no end to the things that people want, and that money can supply, there is real danger that the hunger for money may become insatiable. Martin [2] tells of an experience with a millionaire. "He was walking up and down the room running his fingers through his hair. 'My God, old man,' he said, 'I'm broke. You have no idea how little money a million dollars is!'" In its ability to make men feel secure, the money goal of our society is indeed inferior to the religious goal of the Zuni.

Factors accentuating conflict. Although social conflicts occur in all societies, there are reasons for believing that the American scene is unusually productive of them. Economic competition is not limited to the United States, but there are other factors here that accentuate its effects. One of these is our open-class system. As was seen in the chapter on social classes, a system like ours intensifies competition by making every man a potential competitor of every other man. Where classes are closed, competition is largely limited to members of a particular class. Where there is an aristocracy, an individual's status is partly fixed by birth, but where class lines are not sharply drawn, social status fluctuates a good deal more. Individuals must be constantly on the alert to take advantage of opportunities to better themselves on the one hand and to ward off threats to their status on the other. Such a situation increases the chances for conflict.

An additional source of difficulty is the presence in America of an unusually large number of minority groups, such as the Negroes, the Mexicans, the Chinese, and the Japanese. Because they differ from the

[1] R. S. UHRBROCK, "ATTITUDES OF 4430 EMPLOYEES," JOURNAL OF SOCIAL PSYCHOLOGY, 5:356–77, August, 1934.

[2] EVERETT DEAN MARTIN, THE CONFLICT OF THE INDIVIDUAL AND THE MASS IN THE MODERN WORLD (New York: Henry Holt, 1932), p. 50.

members of the majority group in appearance, habits, and attitudes, prejudice develops toward them and they are discriminated against. Well known, indeed, are the trials and disappointments of members of such minority groups in their efforts to find a place in our society. What needs particularly to be noted is the fact that the antagonism due to racial or cultural differences is accentuated if there is also economic competition between the groups. For example, now that Negroes and whites are often in direct competition, conflict between the two races is both more acute and more common than it was under former conditions of separate work.

Finally, open conflict in the United States is supported by the traditions of democracy. Where individuals enjoy the rights of free speech and free assembly, the chances of an open conflict are greater than where such privileges are lacking. In the United States, employees may strike if dissatisfied with the terms of competition. In dictatorial Germany, Italy, and elsewhere, strikes are prohibited by law. Political conflict may flourish in a democracy to a degree hardly possible in a dictatorship. Conflict is part of the price we pay for the liberties of democracy.

SUMMARY

Human beings strive for goals, but the striving is not entirely an individual matter. Since individuals live in groups, the behavior of each individual is affected by the behavior of others. There is continual interplay or interaction between the members of the group, a situation to which the name social processes is given. Striving together for a common goal is called co-operation, and striving against one another opposition. These are the two basic processes.

Opposition takes a number of forms. The most fundamental of these is competition, the struggle among a number of individuals to obtain values which are scarce. It follows that, where values are defined in terms of scarcity, competition goes on almost incessantly. Despite this fact, however, competition generally remains an impersonal experience, because the competitors usually focus their attention on the prizes they seek and not on one another. When contestants identify one another and strive to win a personal victory, competition takes the form of rivalry. Conflict ensues if hate develops between rivals, and they seek to interfere with one another's striving. Conflict may thus be regarded as competition in its more occasional, personal, and hostile forms.

Both opposition and co-operation are natural phenomena. As such, they are neither good nor bad, but simply inevitable. The advent of Darwin's epochal work, with its emphasis on "the survival of the fittest," gave impetus to the idea that conflict was the fundamental law of nature. This aroused the ire of the champions of co-operation, and in due course Kropotkin published his famous book, *Mutual Aid*, in an effort to show that co-operation, not conflict, is the fundamental law of nature. The fact is that neither enjoys any priority. The two processes are co-ordinate and often interdependent. This fact is shown in a number of ways, as when men co-operate to carry on conflict, or compete to produce more goods which are to be enjoyed co-operatively, as in Russia. The experience of utopian communities shows that divisive as well as unifying experiences are natural to man.

Although it is natural for men to strive both with and against others, their striving may be greatly modified by culture. This chapter points out that culture determines for what people shall strive, with whom, how, and in what ways. The Kwakiutl Indians of the Northwest Coast,

with their emphasis on self-glorification through successful competition, stand in marked contrast to the Zuni Indians of the Southwest, with their stress on subordination of self-interest to the collective welfare.

The principal difference between competitive and co-operative societies is to be found in their differing conceptions of success. The Kwakiutl idea of what constitutes success in life is radically different from the Zuni idea. To explain this difference it is necessary to know the two cultures well — their organization and their history. Likewise, the intense competitive emphasis which marks American civilization cannot be understood without taking into account such factors as the ideology of capitalist economy, the open-class system, the variety of races and nationalities, and the traditions of democracy.

QUESTIONS FOR DISCUSSION

1. Distinguish briefly between competition, rivalry, and conflict.
2. Are some individuals more co-operative than others as the result of inherited tendencies, or are the causes social?
3. How are the evidences of greater co-operation in Sweden than in the United States to be accounted for?
4. How may competition and co-operation be coexistent?
5. Is there more or less conflict among college students than among non-college people?
6. Which is more fundamental in human nature, competition or co-operation? How do you account for the fact that one process is more dominant in certain cultures than in others?
7. Why do utopian communities have difficulties?
8. May cultures be classified as competitive or co-operative? What are the limitations of such a classification?
9. Which is the more desirable, a competitive or a co-operative economic system? Why?
10. Why, in our highly competitive economic system, do we place so much value on an individual's being "co-operative" ?
11. In what ways is economic competition regulated in the United States today?
12. What are some of the "type conflicts" fostered by modern American culture?

TOPICS FOR REPORTS

1. A study of the nature of social conflicts reported in a daily metropolitan newspaper during a period of two weeks.
2. The development of the co-operative movement in Sweden.
3. The strike as a form of industrial conflict. (See E. T. HILLER, THE STRIKE; W. CROOK, THE GENERAL STRIKE. Chapel Hill: University of North Carolina Press, 1931.)
4. The relation of the psychological concept of ambivalence to the sociological concepts of co-operation-conflict.
5. Sex differences in competitive and co-operative play activities in our society.
6. Social distance as a measure of inter-group conflicts.
7. Passive resistance as a form of conflict. (C. M. CASE, NON-VIOLENT COERCION. New York: Century, 1923.)
8. Economic competition as a basis for race prejudice.

SELECTED READINGS

HILLER, E. T., THE STRIKE. Chicago: University of Chicago Press, 1928.

The "natural history" of the strike, with numerous illustrations. A careful sociological analysis.

KROPOTKIN, P., MUTUAL AID: A FACTOR OF EVOLUTION. New York: Alfred A. Knopf, 1922.

The best case for the rôle of co-operation in human evolution. Abundant source materials ably organized and interpreted.

MAY, MARK A., and LEONARD W. DOOB, COMPETITION AND CO-OPERATION. New York: Social Science Research Council, Bulletin 25, April, 1937.

A valuable survey and interpretation of available literature on competition and co-operation, from the psychological, sociological, and anthropological viewpoints. The 220 sources cited in the study are listed as a bibliography. There are also helpful suggestions for further research.

MEAD, MARGARET, editor, CO-OPERATION AND COMPETITION AMONG PRIMITIVE PEOPLES.

Studies of thirteen primitive cultures in terms of their co-operative and competitive tendencies. More valuable perhaps for its descriptions than its interpretations.

PARK, ROBERT E., and ERNEST W. BURGESS, INTRODUCTION TO THE SCIENCE OF SOCIOLOGY.

The primary source of the present interactional viewpoint in sociology. See especially chapter VI, "SOCIAL INTERACTION"; *chapter VIII,* "COMPETITION"; *and chapter IX,* "CONFLICT." *The treatment consists of an introductory interpretive discussion of each concept, followed by illustrative readings and a comprehensive bibliography.*

SOROKIN, P., CONTEMPORARY SOCIOLOGICAL THEORIES. New York: Harper and Brothers, 1928.

Chapter VI contains an exposition and evaluation of conflict and co-operation theories. The range of literature covered is very wide.

THRASHER, F. M., THE GANG. Chicago: University of Chicago Press, 1927.

A competent analysis of a conflict group in terms of social interaction; 1313 gangs furnish the source material for this study, which is interestingly written.

XIII. ACCOMMODATION AND ASSIMILATION

"LIFE IS a series of interruptions and recoveries." Thus aptly does John Dewey point out that, if social life has its conflicts, it also has its adjustments. Individuals quarrel, then make up. Workers strike, but also negotiate for a settlement. War is followed by peace. Indeed, it is probably true that the greater part of human energy is devoted not to out-and-out antagonism against opponents but to efforts to get along somehow with them. Jersild [1] found in studying fifty-four children ranging from twenty-two to fifty months of age that, although they averaged one conflict every five minutes, each one lasted only from twenty to thirty seconds. Sorokin,[2] studying the relative amounts of time spent in peace and war by the principal nations of the West, reports that as a group the proportion of time spent by them in peace exceeds that given over to active warfare. These studies bear out the contention of the previous chapter that conflict is not an incidental or abnormal phase of man's behavior, and they also support the view that conflict in human society is intermittent. Indeed, it is the "start and stop" character of conflict which helps to distinguish it from competition.

Why is conflict intermittent? For one thing, opponents may be very unevenly matched, so that the weaker despairs of victory and accepts defeat rather than run the risk of being exterminated altogether. At present, for example, it would be futile for the Negroes as a people to rebel against their caste standing, or for the Indians to rise up against their segregation. Children soon discover that it does not pay to resist their elders. This is borne out by Caille's [3] finding that there is a cor-

[1] A. T. JERSILD and F. V. MARKEY, "CONFLICTS BETWEEN PRE-SCHOOL CHILDREN," CHILD DEVELOPMENT MONOGRAPH, no. 21, 1935.

[2] PITIRIM A. SOROKIN, SOCIAL AND CULTURAL DYNAMICS, vol. III: "FLUCTUATIONS OF SOCIAL RELATIONSHIPS, WAR, AND REVOLUTION" (New York: American Book Company, 1937), pp. 351 ff. Sorokin finds that approximately fifty per cent of the years in the history of the principal European nations have been given over to war. However, since many of the wars lasted only a fraction of a year, the total time devoted to peace is well in excess of fifty per cent.

[3] R. K. CAILLE, "RESISTANT BEHAVIOR OF PRE-SCHOOL CHILDREN," CHILD DEVELOPMENT MONOGRAPH, no. 11, 1933.

relation of .63 between the resistance of children to adult authority and their submission to it.

Again, individuals even when evenly matched weary of fighting and long for peace, as was shown dramatically at the close of the first World War when the Armistice was declared, and soldiers from both sides in their great joy embraced each other.

Conflicts sometimes cease because those who have started them become remorseful and make overtures of good will. This is seen in the case of married couples who quarrel, then "kiss and make up." Experimentally it has been shown that children who start fights are the first to make up; Bathurst [1] found a high degree of correlation between aggressiveness and sympathy.

Finally, in addition to these factors making for peace which are inherent in either the nature of conflict or the nature of man himself, there is the social or objective factor. Peace is essential to organized social life. Societies evolve means for elimination of conflict, or at least for keeping conflict within bounds. In our society, for example, boys' gangs are often conflict groups and are regarded as undesirable. They are held to be the source of much delinquency. Consequently, such offsetting organizations as the Boys' Clubs of America and the Boy Scouts have been developed, to say nothing of juvenile courts and industrial homes. A large part of social organization is given over to such "agencies of accommodation," as Burgess [2] has called them.

The Nature of Accommodation

Conflict and Accommodation

Accommodation is the term used by the sociologist to describe the adjustment of hostile individuals or groups. It cannot be said that individuals are accommodated unless they have previously been in conflict. Even in accommodation there is usually a residue of antagonism, so that often the adjustment proves to be only temporary. Conflict may break out again at any time. Yet it must not be thought that accommodation is merely quiescent conflict. Accommodation refers to the actual working together of individuals in spite of latent hostility. When Mahatma Gandhi advises his East Indian compatriots not to pay

[1] J. E. Bathurst, "A study in sympathy and resistance among children," psychological bulletin, 30:625–26, October, 1933.

[2] E. W. Burgess, "accommodation," encyclopedia of the social sciences, vol. I, pp. 403–04.

taxes to the British Government and not to participate in any British programs, his tactics are those of conflict, albeit they are non-violent.[1] There must be co-operation of some sort if there is to be accommodation. The latter obtains in India only after the British Government concedes certain points, as it periodically does, and Gandhi's followers, pleased by the concessions to their nationalistic claims, once more give grudging support to the British program.

Accommodation and ambivalence. As was suggested in the previous chapter, the social processes reflect the underlying attitudes of individuals: those of love and hate. When love attitudes prevail, co-operation is possible. Hate, in turn, portends conflict. In accommodation, on the other hand, love and hate attitudes coexist. This fact led Sumner to refer to accommodation as "antagonistic co-operation." The more friendly the relationship, the greater the degree of accommodation. Take, for example, the case of the Negroes in the South at the time of the Civil War. There were two classes of slaves, those who worked in the fields and those who worked in the household. The latter had a higher status and enjoyed more privileges, hence felt more friendly toward the white man. The degree of accommodation of the household Negroes was greater than that of the field slaves, as may be seen from the fact that far fewer of the former deserted their masters.[2]

THE DYNAMIC CHARACTER OF SOCIAL INTERACTION

Social adjustment is a dynamic, ever-changing experience. Individuals living in groups co-operate and compete. When differences develop between them, they become antagonistic and resort to conflict. After a time antagonists cease their fighting and effect some sort of accommodation. In due course the antagonism may disappear completely as a new unity of purpose and outlook is developed between the factions. It must not be thought, however, that the social processes invariably follow a definite positive sequence such as this. Individuals have the capacity of making less friendly as well as more friendly adjustments. Conflict may be followed by accommodation only to revert to conflict again. This is, for example, the usual situation in modern industry, where workers alternate between strikes and settlements. Lasting adjustments in any phase of human experience are rare phenomena.

[1] C. M. CASE, NON-VIOLENT COERCION (New York: D. Appleton-Century Company, 1923).

[2] E. O. SETTLE, "SOCIAL ATTITUDES DURING THE SLAVE RÉGIME: HOUSEHOLD SERVANTS VERSUS FIELD HANDS," PUBLICATION OF THE AMERICAN SOCIOLOGICAL SOCIETY, May, 1934, p. 95.

The dynamic character of human interaction is well illustrated by the life history of individuals in our culture. It is illuminating to trace the sequence of processes in the development of the child.[1] The first period in his life is usually one of indulgence. The baby is made the center of attention. Much of the conversation of the family revolves about him and his doings. He is exhibited and his achievement applauded.

Then, quite suddenly, this period of happy co-operation gives way to one of restraint and discipline. When the child is about two years old, his parents undertake to socialize him. Almost overnight they wish him to become an obedient, well-mannered, respectable citizen. The child's usual reaction to such restraint and domination by his parents is conflict of some sort: temper tantrums, defiance, negativism. But soon the child learns that this is an adult's world and he cannot prevail against it.

Thus begins the third period in his life, of reluctant conformity, or accommodation. The child learns how to get along. He discovers that he can get a good deal that he wants if only he does not antagonize his elders. He learns the strategy of putting his best foot forward while "getting away with things." He confides in his superiors, yet has his secrets too.

So the child's life continues in its ambivalence of catering to adult authority and evading it, until the period of adolescence arrives. Once more there is rebellion against control, as the maturing boy or girl is possessed with a desire for independence and self-realization. In the reaction against parental domination there may develop in the child a violent disdain for values associated with the parents, as, for example, their recreational, occupational, and religious preferences.

As the adolescent tries to put his own ideas into practice, another period of adjustment sets in. Actual responsibility proves quite sobering in its effects. The feeling of superiority to adults diminishes as the young person moves on toward adulthood. Then come marriage and parenthood, and the cycle is repeated.

Forms of Accommodation

Having indicated something of the nature of accommodation, it would be well to consider next some of the principal forms which the process assumes. We are interested in knowing how conflict terminates. Any

[1] Adapted from G. Murphy, L. B. Murphy, and T. M. Newcomb, *Experimental Social Psychology* (New York: Harper and Brothers, 1937), pp. 504 ff.

particular conflict may be concluded either by being swallowed up in a new and usually larger conflict, or by being resolved through accommodation. The former was illustrated in the preceding chapter by the way conflict among social classes gives way to co-operation when the nation as a whole is threatened by attack from without. Here it is our purpose to consider the other alternative, the modification of the form of the interaction itself as conflict gives way to adjustment.

VICTORY, SUPERORDINATION, AND SUBORDINATION

Conflict comes to a close when one of the antagonists achieves a clear-cut victory over the other. The loser has to choose between submitting to the terms of peace imposed by the victor or continuing the conflict with the risk of being eliminated altogether. If the one who is defeated is also annihilated, the social relationship obviously comes to a close. Conflict may, of course, lead to the elimination of one or both rivals, but as a rule some sort of adjustment is worked out short of carrying conflict to its "logical extreme." In cases where one party to a conflict is victorious over the other, the latter usually accepts defeat and a position of inferiority.

When two strangers meet, one of the first things they do is to determine which is to dominate. They do so, as a rule, quite unwittingly. For two strangers to carry on a relationship they must first be placed with reference to each other. In ordinary life we go by various signs in adjusting to others: we defer to those who are bigger or older or richer or wiser than we are. Since most relationships are between individuals who are not equals in strength, age, wisdom, or position, the adjustment of the two is in terms of what the psychologist calls ascendance-submission [1] and the sociologist superordination-subordination.[2]

The status-fixing function of competition. That the function of competition and conflict is to fix the status of the contestants, and that this is generally effected in terms of superordination and subordination, is brought out by certain observations on the animal world. For example, it has been observed that a definite "pecking order" is established among hens when they are grouped. Hen A pecks Hen B, but the latter does not retaliate. Instead B pecks C, while C takes it out on D. There are some curious and unexplained sequences, for D may peck A. In part

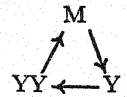
[1] See R. T. LaPiere and P. R. Farnsworth, social psychology (New York: McGraw-Hill Book Company, 1936), pp. 291 ff. Also G. W. Allport, "A test for ascendance-submission," journal of abnormal and social psychology, 23:118, 1928.

[2] N. J. Spykman, the social theory of georg simmel, pp. 95 ff.

the pecking order results from previous encounters where the relative prowess of the hens was determined, but also it may be due in part to accident.

In one study, a flock of thirteen brown leghorn pullets was patiently watched for sixty days, and the pecks received and delivered were recorded. The peck order of this flock is shown in Table 12. It will be observed that there is a regular line organization down to the eighth bird, when an irregularity occurs. At this point a triangular relationship appears, M pecking Y, Y pecking YY, and YY pecking M. Such irregularity is due to accidents of one sort or another. YY may have met M for the first time on one of its off days, gained an advantage in the encounter, and retained it with the aid of the psychological dominance thus established.

TABLE 12. SOCIAL HIERARCHY OF A FLOCK OF HENS [1]

RW pecks all 12	: A, BG, BB, M, Y, YY, BG_2, GR, R, GY, RY, RR.	
RR pecks 11	: A, BG, BB, M, Y, YY, BG_2, GR, R, GY, RY.	
RY pecks 10	: A, BG, BB, M, Y, YY, BG_2, GR, R, GY.	
GY pecks 9	: A, BG, BB, M, Y, YY, BG_2, GR, R.	
R pecks 8	: A, BG, BB, M, Y, YY, BG_2, GR.	
GR pecks 7	: A, BG, BB, M, Y, YY, BG_2.	
BG_2 pecks 6	: A, BG, BB, M, Y, YY.	
YY pecks 4	: A, BG, BB, M.	
M pecks 4	: A, BG, BB, Y.	
Y pecks 4	: A, BG, BB, YY.	
BB pecks 2	: A, BG.	
BG pecks 1	: A.	
A pecks 0		

A similar hierarchy of status, of superordination and subordination, may be observed among the primates. The stronger male baboons build up harems of females which they protect from the advances of the weaker males. The leadership in these cases, as among the hens, is settled by earlier overt combat among the males. The situation among human beings is essentially the same. The chief of a boys' gang is likely to be the fellow who can beat up all the rest, or who excels the rest in

[1] W. B. ALLEE, THE SOCIAL LIFE OF ANIMALS (New York: W. W. Norton and Company, 1938), p. 178.

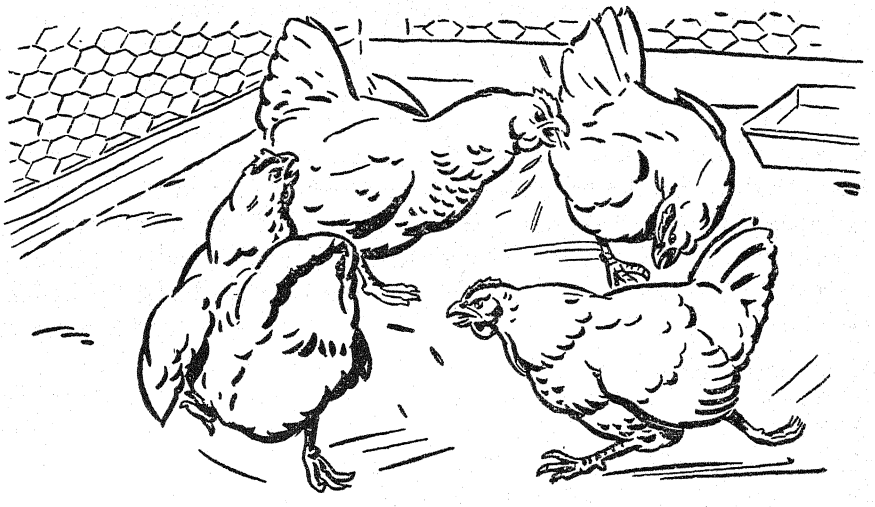


FIGURE 53. THE PECKING ORDER OF HENS

A hierarchy of status exists among hens, established by overt conflict. In a flock, one hen tends to be dominant over the rest but sometimes, as the illustration above shows, there are irregularities in pecking order. A *may peck* B, B *peck* C, *and* C *peck* D, *but* D *peck* A. *A major function of competition and conflict is to fix the status of contestants. Based on material from* W. B. ALLEE, THE SOCIAL LIFE OF ANIMALS (*New York City: W. W. Norton and Company*).

exploits which call for courage.[1] Likewise among the Eskimo when a man comes to a settlement he has never visited before, he engages in a series of wrestling matches so he may be placed in the hierarchy of strength.[2] Competition and conflict, past and present, play a significant part in determining the status of individuals and groups.

Among animals, size appears to be an important factor affecting the outcome of conflict. The bigger animals have an advantage over the smaller. Since males are usually larger than females, the former for this reason have an advantage in combat; for instance, cockerels prevail over hens in pecking order. Among children, likewise, physical superiority plays an important part in determining the outcome of clashes. This is brought out by a study of eighteen infants between twenty-one and thirty-three months of age, with I.Q.s ranging from 90 to 159, at the Child Development Institute of Columbia University. These children were observed during their free-play period and it was noted that the greatest number of conflicts were won by the less intelligent, taller, older,

[1] F. M. THRASHER, THE GANG (Chicago: University of Chicago Press, 1927).

[2] FRANZ BOAS, "THE CENTRAL ESKIMO," REPORT OF THE BUREAU OF AMERICAN ETHNOLOGY, vol. 6.

heavier children. An advantage in weight was the most important factor.[1]

Among mature human beings, however, competition generally takes place on the psychological rather than the physical level. Society seeks to prevent conflicts between persons from taking direct, physical form, because of the disturbing effects of such uncontrolled conflict on group life. Culture has developed institutions for the determination of issues; two men with a quarrel are urged to settle it in the courts, not with their fists. Also, as culture has evolved, men have come to covet superiority on the social level above superiority on the physical plane. Physical dominance is socially esteemed only in its socialized forms; for instance, prize fighting according to rules is valued, but street fighting is condemned.

Most competition and striving for dominance, however, takes place on a sublimated or non-physical level. Scholars and scientists compete in research and writing for a high reputation, an important post, the Nobel Prize. Businessmen achieve distinction and rank through amassing more wealth than their competitors. Students in college compete for grades which fix their status in the scholastic hierarchy, topped by those who achieve Phi Beta Kappa and *summa cum laude*. Candidates compete for political office; in the case of the presidency of the United States, the victor becomes famous, while the vanquished is usually forgotten, an instance of extreme superordination-subordination.[2]

COMPROMISE AS CO-ORDINATE ACCOMMODATION

The superordination-subordination type of adjustment usually results when the contestants are unevenly matched, or when the issue is brought to a definite head through the victory of one of the parties. When the combatants are of about equal strength, on the other hand, neither may be able to prevail over the other. In order to avoid fruitless struggle, the contestants may agree to a compromise. In compromise, each party to the dispute makes some concessions. The "all-or-nothing" attitude gives way to a willingness to yield certain points in order to gain others. "A compromise is by its very nature a crazy quilt in which everyone can identify his patch; he can find consolation for his disappointment by reflecting that everyone else is disappointed too." [3] The Compromise of 1850 is an historical example. The South wished to extend the system

[1] E. KUMLIN, THE CONFLICTS AND RESISTANT BEHAVIOR OF EIGHTEEN CHILDREN IN A NURSERY SCHOOL (Master's thesis, Columbia University Library, 1933).

[2] Few of us can give the names of candidates defeated for the presidency. See DON CARLOS LEITZ, THE "ALSO RANS" (New York: Thos. Y. Crowell Company, 1928).

[3] H. D. LASSWELL, "SOCIAL CONFLICT," ENCYCLOPEDIA OF THE SOCIAL SCIENCES, vol. IV, p. 195.

of slavery throughout the new territory, while the North was determined to stamp slavery out altogether. To avoid war, it was agreed to admit slavery to certain states and exclude it from others. Thus compromise may be resorted to when the contestants wish to avoid open conflict, in order to "save the union."

The readiness with which conflicting individuals and groups resort to compromise is dependent on the emphasis of the culture. It should be mentioned also that the object-matter of the struggle also affects the form of accommodation. On some things compromise may be out of the question. As Faris points out, for example, there can be no compromise on religious fundamentals.[1]

TOLERATION

Where, as in religion, compromise is out of the question and the various groups do not resort to overt conflict, only one adjustment is possible, namely, toleration. In toleration no concession is made by any of the groups. There is no change in basic policy. Each group, however, must bear with the others. Though each religious group believes its faith is the only correct faith and proselytes for new members, it must suffer the other groups and accord them the same rights. In the United States religious toleration came only after years of religious strife. The difficulty of maintaining this fine balance is shown by the recent church history of Russia, Spain, and Germany.

CONCILIATION

In toleration there is no good will, only a reluctant acceptance of something that is unavoidable. It sometimes happens, however, that antagonists develop a friendly attitude toward one another even while they are carrying on their dispute. Because of new developments they may have a change of heart, and affection may replace the former feeling of hatred. Sometimes the getting of new information gives the individuals a new slant on their quarrel. It is in this way that social workers are able to effect reconciliations between estranged husbands and wives. Mental conflicts may be solved in the same way with the help of psychoanalysts and psychiatrists. The National Conference of Jews and Christians endeavors to build up a spirit of friendliness between the peoples of different faiths by pointing out the essential similarities in their

[1] E. FARIS, THE NATURE OF HUMAN NATURE (New York: McGraw-Hill Book Company, 1937), p. 340.

beliefs. The Interracial Commission attempts to bring about favorable attitudes toward the Negro by building up a better understanding of the Negro problem.

Among the Eskimo a curious vehicle of conciliation is provided by the culture in the form of the drum match. Individuals who are at odds start out to abuse each other. While beating a drum they sing songs and recite poems of their own invention which ridicule the other person. But it is interesting to learn that the actors usually wind up by having a great deal of fun together. The activity apparently becomes sport and is enjoyed in its own right, hence serves as a medium of conciliation.

CONVERSION

In the case of conciliation, friendliness replaces animosity, and co-operation is established. But there is no identity of thought. The two parties work together amicably and respect one another's views, but are not of one mind. The Catholics remain Catholics; the Protestants, Protestants; and the Jews, Jews. In the National Conference of Jews and Christians, for instance, the several churches actively work together and respect one another's views, but retain their own. It may happen, however, that one of the parties to a conflict is in time persuaded that he has been wrong and his opponent right. Accordingly he may go over to the other side and identify himself with the new point of view. This is known as conversion. It is, as will be seen from the discussion below, a form of assimilation. Ordinarily we identify conversion with rapid changes of religious conviction, but the same process may occur in other aspects of experience.

Culture and Accommodation

In the preceding chapter it was shown that culture determines with whom and how individuals in the society may engage in competition and conflict. It is likewise true that the culture determines when and how conflicts shall be adjusted.

THE CULTURAL CONTROL OF CONFLICT

The culture is not uniformly concerned about all conflicts; it may permit certain kinds of disturbance, while rigorously suppressing others. Among some primitive peoples murder is not regarded as so serious an offense as it is among us. The community as a whole may take no action

against the murderer. For instance, murder is common in Ammassalik Eskimo society, yet nothing whatsoever may be done about it. Elsewhere, feuds may develop between the families involved and be carried on for long periods of time.

Most societies are concerned a good deal more about conflicts between their own members than about those quarrels which their members have with outsiders. If a Crow murdered a Dakota it was occasion for rejoicing, but it was a serious matter if one Crow killed another, even if the two were unrelated. Internal strife threatens the security of the group, so the culture takes cognizance of it. The Crow police worked as conciliators, persuading the aggrieved kinsmen to accept a payment of money (*weregild*) as damages for the injury done. It may be observed, then, that societies have standard techniques for bringing to an end such conflict as is regarded as a menace to the group as a whole.

Although societies are concerned chiefly with maintaining peace inside the group, they may also have an interest in avoiding protracted struggles with outsiders. Thus societies evolve a machinery for securing peace, even as they develop an organization for waging war. This is interestingly brought out in the following account of the Murngin:

> Peace-making was also often a matter of elaborate ritual. In Australia an injured Murngin group invites the enemy to assemble with them. Both companies appear in ceremonial paint and stand at a safe distance from each other, then the hosts dance over to their guests and informally walk back. The opposite side responds in the same way. The men accused of instigating the murder that caused the late unpleasantness then run in a zigzag across the middle of the field. Every member of the aggrieved clan hurls a headless spear at these miscreants, and those feeling most intensely throw several spears while their fellows roundly curse the enemy. To this there must be no reply lest peace be again jeopardized. Next the actual murderers must run the gauntlet in the same way, except that they are exposed to spears with stone heads. However, the old men of both groups walk about as moderators, cautioning the throwers against actually hurting their targets and the other side against answering their revilers. Finally, one of the hosts thrusts his spear through the thighs of the murderers. This signifies the atonement for the injury, removes fear of further trouble, and is followed by a joint dance to express the harmonious relationship of the former combatants. But a *slight* wound suggests a mental reservation, hence only a truce, while a mere scratch serves as a direct notice of vengeance to come. Even apart from this contingency the peace negotiations may easily

merge into another battle if one of the participants gets excited. In any case, however, there is a standard technique for closing hostilities.[1]

It is evident that the culture determines which conflicts the group as a whole will recognize and how it will attempt to deal with them. Cultures differ greatly in the kinds of accommodation they prefer. Some insist on a clear-cut victory and frown on compromise and conciliation, while other cultures extol the conciliation. Among the Kwakiutl, for instance, compromise is regarded as a sign of weakness. If one man murders another, he may avoid retribution on the part of the murdered man's family by paying them an indemnity, but this settlement is regarded as a disgrace which hounds the murderer's family for generations. As was shown in the case of the intense potlatch competition among these people, the principal interest in the society is self-glorification at the price of the humiliation of others.

On the contrary, the Zuni, favoring peace and moderation as they do, are inclined to compromise in all conflict situations. The same seems to be true of the Chinese. In China, should two persons start a quarrel on the street, they might soon be surrounded by interested spectators. The whole group would then repair to a teahouse, where over teacups each principal would present his side of the case, while the audience would act as jury. If the verdict went against one of the contestants, he paid for the tea-party and the affair became a closed matter.[2]

In the United States compromise, conciliation, and arbitration are favored, although the usual resort is to more formal means of settlement, such as courts, tribunals, and commissions. In the early phases of our history, when society was much less complex than it now is, more extreme measures were in greater favor. Dueling, for instance, was approved for the settlement of personal grievances, and in one such encounter Aaron Burr killed Alexander Hamilton. As a society becomes more complex, it is increasingly unsatisfactory to leave the solution of conflicts to the individuals directly involved. Moreover, so many different interests and points of view are represented in a heterogeneous, complex society such as ours today that compromises and concessions are required if social life is not to be too greatly disturbed.

[1] ROBERT H. LOWIE, AN INTRODUCTION TO CULTURAL ANTHROPOLOGY, Revised Edition, p. 229. (Copyright, 1940. Reprinted by permission of the publishers, Farrar and Rinehart, Inc., and George G. Harrap & Co., Ltd.)

[2] Cf. LIN YUTANG, THE IMPORTANCE OF LIVING (New York: Reynal and Hitchcock, 1937), p. 44.

The spirit of compromise in our culture is evidenced strikingly in legislative bodies, which may be said to represent the differing and clashing interests of the community. So well established is the principle of compromise that a standard technique for the resolution of conflicts has been evolved: the conference committee. Matters upon which the two houses cannot agree are referred to a committee, consisting of members of both houses, who work out a compromise bill. For instance, at the time of writing, the Senate has passed a bill authorizing the Tennessee Valley Authority to issue bonds for $100,000,000 with which to buy private utility properties. The House cut the amount to $61,500,000. A conference committee kept the amount at the lower figure, but the House provision restricting T.V.A.'s operations to the Tennessee River's watershed was stricken out. Compromises in American politics are indeed so common that compromise is often referred to as the politician's art. The politician is always ready to take the best terms possible and to strike the best bargain, on the theory that half a loaf is better than none. Indeed, in anticipation of the compromise process, he is likely to ask for a loaf and a half, in the hope of actually getting a loaf.

Mediation and arbitration. Organized society, then, evolves ways and means of settling disputes. Among these, mention may be made particularly of two techniques of accommodation which man has invented and which are in wide use. These are mediation and arbitration. Mediation is the technique of bringing estranged individuals together and creating in them the willingness to consider the possible settlement of their difficulty. The mediators may even suggest a basis for a settlement, in case the contestants themselves seem to have no common meeting ground. The suggestions made by the mediators have, however, no binding force. The United States Department of Labor, for instance, has a special force of mediators and conciliators who render assistance in bringing industrial conflicts to an end. Organized in 1914, the Conciliation Service, acting only on request of the parties concerned in the trouble, or on the invitation of the interested public, has proved to be the most important official mediation agency in America. It has a staff of seventy persons. From 1914 to 1934 it handled twelve thousand cases, of which 70 per cent were successfully adjusted.[1] The Conciliation Service of the Department of Labor has jurisdiction in any non-railroad controversy. To adjust disputes between carriers and their employees, a separate agency, the National Mediation Board, has been set up.

[1] ANNUAL REPORTS OF THE SECRETARY OF LABOR (Washington: Government Printing Office).

Arbitration differs from mediation in that a definite decision on the issue is handed down by the individuals who serve as arbitrators, and the decision is regarded as binding on the contestants. In constituting a board of arbitration, the attempt is usually made to have the balance of power in the hands of impartial individuals. In the United States, arbitration is widely used in industrial disputes, but is principally of the voluntary sort; that is, it is generally resorted to only when desired by the parties to the difficulty. The arbitration technique need not, of course, be limited to the industrial field, as it is applicable to a wide range of disputes. In recognition of this fact there was founded in 1926 the American Arbitration Association, a non-profit organization to further the arbitration principle. The Association has facilities in sixteen hundred cities and an official panel of seven thousand arbitrators who serve without pay. In keeping with American practice, the service is on a voluntary basis, and the cost to each party is about one per cent of the amount involved. In many European countries, however, the government resorts to compulsory arbitration, which means that disputes are automatically referred to a tribunal for settlement. The controlling elements in these countries feel that strikes and disputes are expensive and wasteful, and that frequently the interests of the general public are involved and not merely those of the contending parties.

In the United States compulsory arbitration has been opposed in the field of industrial relations, on the ground that it would work to the detriment of labor. Experience with compulsory arbitration in other countries shows that the workers are suspicious of it, unless the government in power is a labor or friendly government, or unless the workers are swayed by nationalistic appeals. Compulsory arbitration deprives organized labor of its most powerful weapon, the strike, and leaves unions at a decided disadvantage in collective bargaining, since usually employers retain the right to discharge workers.

Compulsory arbitration has been used in various places in this country in times past, and is even now to be found in circumscribed form in some fields. After a serious coal strike, which led to a coal shortage and to considerable public inconvenience, Kansas in 1920 enacted a compulsory arbitration law. It was applied for a number of years, but certain phases of the law were declared unconstitutional by the United States Supreme Court in 1923 and 1925, leaving the legal status of compulsory arbitration in this country in some confusion. In the matter of railway disputes between carriers and management, the Federal Government utilizes

compulsory investigation with voluntary acceptance of award. That is, the Government publishes its findings and places reliance on the force of public opinion to persuade the disputants to accept the results. Before turning to such compulsory adjudication, however, the Government first attempts conciliation. In the field of industrial relations thoroughgoing compulsory arbitration has made relatively little headway, and this despite the fact that the principle of compulsory arbitration is well established in our culture. Trial by judge and jury, for instance, is essentially a form of compulsory arbitration.

Assimilation

Earlier in the chapter conversion was mentioned as a form of assimilation. Assimilation is the process whereby individuals or groups once dissimilar become similar; that is, become identified in their interests and outlook. It is "a process of interpenetration and fusion in which persons and groups acquire the memories, sentiments and attitudes of other persons or groups, and by sharing their experiences and history, are incorporated with them in a cultural life." [1] Usually, when this process is mentioned, we think of immigrants being "Americanized." The acculturation [2] of foreigners has been studied by sociologists more than all other manifestations of assimilation, hence a better-rounded treatment of this topic can be given than of some others. The use of this illustration should not lead the student to believe that the process is limited to this single field. Children are gradually assimilated into adult society as they grow up and learn how to behave. Foster children take on the new ways of their foster parents, sometimes so completely that the traces of earlier home influence are effaced. Husbands and wives, starting marriage with dissimilar backgrounds, often develop a surprising unity of interest and purpose. In the religious field, members of one church may be brought into the fold of another by the experience known as conversion. Since assimilation is a social process, it is in the very nature of the case a characteristic of group life in general, and is not limited to particular kinds of groups.

A common but mistaken notion about assimilation is that it is a one-way process. According to this view, when an individual of foreign

[1] R. E. Park, and E. W. Burgess, Introduction to the Science of Sociology, p. 735.

[2] Acculturation is the process whereby individuals reared in one culture and transferred to another take on the behavior patterns of the second society.

extraction is brought into contact with American culture, he abandons his old culture and takes on the new, if he is assimilated. He is presumed to accept our culture, but to contribute nothing to it. Unfortunately for national pride, this one-sided view of assimilation is not a valid one. Close contact of persons of dissimilar cultures always results in mutual interpenetration and fusion of culture traits, although the borrowing may not be as pronounced in the one direction as the other. The assimilation of African Negroes into the culture of America has proceeded to the point where Negroes generally evince no interest in Africa as a homeland, and possess culture traits which are almost altogether American in nature. While the Negro was being assimilated, however, America was adding such Negro contributions as jazz music, spirituals, and crap-shooting to its cultural store. Likewise, as Linton [1] points out, the assimilation of Italians has given us, among other things, a popular interest in grand opera, spaghetti dinners, and superior techniques for racketeering.

ASSIMILATION AND ACCOMMODATION

What relationship does assimilation bear to accommodation? The common assumption seems to be that the more alike two individuals or groups become, the better adjusted they will be to each other. There is a companion idea that the more we know about others the better we like them. Not a few established social programs are predicated on this conviction, as for example the international exchange of students and university instructors in the interests of world peace. But these are at best only half-truths, as will be shown by an examination of the evidence on the assimilation of racial minorities in the United States.

Effect of large numbers on the accommodation of a racial minority group. It is necessary first of all to point out that the factor of numbers has a great deal to do with the kind of adjustment which these groups may make. A single Chinese, or Japanese, or Mexican family in a community may be highly esteemed if the individuals are personally acceptable. Should the number of such families increase, the situation may become radically different. This fact has been shown experimentally by Moreno.[2] At the Hudson School for Girls, a correctional institution in New York State, six or eight girls live together in a cottage. It was

[1] RALPH LINTON, THE STUDY OF MAN (New York: D. Appleton-Century Company, 1936), p. 335.

[2] J. L. MORENO, WHO SHALL SURVIVE? (A NEW APPROACH TO THE PROBLEM OF HUMAN INTERRELATIONS), Nervous and Mental Disease Monograph no. 58 (Nervous and Mental Disease Publication, 1934).

found that the introduction of one Negress into a cottage caused little or no resentment, but the hostility increased if others of the same race were added. The increase in resentment was out of all proportion to the increase in numbers. Experience elsewhere confirms this experimental observation.

The prejudice against the Japanese on the Pacific coast must be viewed in the light of the fact that fifty-five per cent of the total Japanese immigration to the United States was concentrated in California, with San Francisco, the chief port of entry, the most favored place of settlement. The presence of such large numbers of Japanese intensifies the economic competition; hence they are regarded as a menace to economic security. In addition they are viewed as a threat to white supremacy. They are identified by their color, so concealment is impossible.

Assimilation and social acceptability. It may now be shown that there is no necessary relation between accommodation and assimilation. The Chinese in the United States are no more assimilated than the Japanese, but they appear to be far better accommodated. It is interesting to compare the situation of the Chinese with that of the Japanese, since both were largely concentrated in California. In 1930 there were 74,954 Chinese on the Pacific coast. This represented a gain of 21.6 per cent since 1920. As is well known, the Chinese at first came into direct economic competition with white laborers, and the result was such resentment against them as to lead to the passage by Congress of the Exclusion Act. Prejudice against Chinese was intensified by certain unapproved practices, particularly the activities of the highbinder tongs in gambling and the opium trade. But now things are different. Racketeering is on the decline. Many of the tongs have changed into benevolent societies. The crime rate is down. The segregated Chinese are no longer in direct economic competition with the white man. There is actual co-operation between the white merchants and the Chinese. Chinatown is regarded as an asset and is played up to the tourist trade.[1]

The accommodation on the part of the Chinese is excellent. It has been achieved by a policy of strict segregation and the maintenance of a separate cultural life. The Japanese, who are probably more fully assimilated into American life, are more poorly adjusted. The case of the Negro is in point here also. Certainly the Negroes today are largely assimilated, yet as a group they are now less well adjusted to the white

[1] C. N. REYNOLDS in SOCIAL PROBLEMS AND SOCIAL PROCESSES, edited by E. S. BOGARDUS (Chicago: University of Chicago Press, 1933), pp. 79 ff.

man's world than they were in the earlier period of slavery. It has been shown by means of objective tests that the better educated Negroes are more militant in their objection to caste discrimination than are those with less training.[1] The more thoroughly assimilated Negroes become, the more they realize the limitations and discriminations under which they must live and the more resentful they become. The more assimilated the Negro, the more nearly he approaches the white man in competitive skill; hence the greater becomes the white man's resentment against him.

A distinction needs to be made between assimilation and social acceptance. Where the alien individuals differ from the majority group in culture only, assimilation may easily lead to complete acceptance and social adjustment. Members of the second and third generations of immigrants from northern Europe are readily absorbed. Even members of the first generation, with unusual talent of some sort and an ability to take on the American patterns of life, may win complete acceptance; as is witnessed by the career of Edward Bok, the Dutch immigrant boy who rose to social and financial prominence.[2] Felix Frankfurter, brought by his parents to the United States from Vienna at the age of twelve is now Associate Justice of the United States Supreme Court. Joseph Pulitzer, an immigrant from Hungary, achieved a position as one of the most distinguished newspapermen in our history.

But when a racial barrier, or what is thought to be a racial barrier, also exists between the two groups, the situation is radically different, as may be seen from the following account of the isolation of a thoroughly assimilated Japanese woman:

> I recently had the curious experience of talking with a young Japanese woman who was not only born in the United States, but was brought up in an American family, in an American college town, where she had almost no association with members of her own race. I found myself watching her expectantly for some slight accent, some gesture, or intonation that would betray her racial origin. When I was not able, by the slightest expression, to detect the oriental mentality behind the oriental mask, I was still not able to escape the impression that I was listening to an American woman in a Japanese disguise.
>
> A few months later I met this same young woman after she had returned from her first, and perhaps her last, visit to Japan. She was unusually

[1] CHARLES S. JOHNSON, "RACIAL ATTITUDES OF COLLEGE STUDENTS," PUBLICATIONS OF THE AMERICAN SOCIOLOGICAL SOCIETY, May, 1934, pp. 24 ff.

[2] EDWARD BOK, THE AMERICANIZATION OF EDWARD BOK (New York: Charles Scribner's Sons, 1920).

> reticent about her experiences, but she explained that it was impossible for her to remain longer in Japan, although she had had every intention of doing so. She had found herself at a peculiar disadvantage there, because, though she looked like a Japanese, she was unable to speak the language; and besides, her dress, language, everything about her, in fact, betrayed her American origin. The anomaly struck the Japanese public as something scandalous, almost uncanny. When she appeared on the street, crowds followed her. They resented, perhaps even more at the time because of the recent passage of the Alien Land Law, the appearance of a Japanese woman in the masquerade of an American lady.[1]

An alien culture can be set aside, but not an alien skin. This Japanese woman found herself in the anomalous position of having been weaned from the culture of her origin, yet rejected by the culture of her choice.

To describe such an individual, who lives in a cultural no-man's-land, the phrase marginal man has been proposed. In some cases the marginality results from the mixture of races, as is the case with the Eurasians of India, who are rejected by both the East Indians and the English,[2] as may be the case also with mulattoes and half-breeds in the United States. But as the case of the Japanese woman cited above reveals, an individual may be on the margin between two cultures without being a racial hybrid.[3]

SOCIAL DISTANCE AS A MEASURE OF ACCOMMODATION

If there is no conflict between two individuals or groups, they will willingly consent to share certain experiences. The more kindly disposed they are toward each other, the more intimate will be the experiences they are willing to share. If, on the other hand, there is great hatred between them, they prefer to avoid each other altogether. Consequently, it is possible to measure the degree of social acceptance (accommodation)

[1] ROBERT E. PARK, "BEHIND OUR MASKS," THE SURVEY, 56:136, May 1, 1926.

[2] "Of the several half-caste groups in Asia, the largest and most self-conscious is the Anglo-Indian Community. It numbers perhaps two hundred thousand persons who maintain themselves precariously on the outskirts of British-Indian officialdom, employed for the most part in clerical and other minor positions under the government. The life of the Anglo-Indian is one protracted struggle for status, occupational and social, and in that struggle he seems to be losing ground. Despised by both British and Indians, he may well be submerged in the turmoil of the present, trampled under by the march of India's millions toward nationalism." ELMER L. HEDIN, "THE ANGLO-INDIAN COMMUNITY," AMERICAN JOURNAL OF SOCIOLOGY, 40:165, September, 1934.

[3] EVERETT V. STONEQUIST, THE MARGINAL MAN. The phrase marginal man was first used in this sense by Robert E. Park.

TABLE 13. REACTIONS OF 1725 AMERICANS TO 40 DIFFERENT RACES BY PERCENTAGES*

Regarding races listed below	1 To close kinship by marriage	2 To my club as personal chums	3 To my street as neighbors	4 To employment in my occupation	5 To citizenship in my country	6 As visitors only to my country	7 Would exclude from my country
English	93.7	96.7	97.3	95.4	95.9	1.7	0.
Americans (native white)	90.1	92.4	92.6	92.4	90.5	1.2	0.
Canadians	86.9	93.4	96.1	95.6	96.1	1.7	.3
Scotch	78.1	89.1	91.3	92.8	93.3	1.7	0.
Scotch-Irish	72.6	81.7	88.	89.4	92.	16.7	.4
Irish	70.	83.4	86.1	89.8	91.4	4.	.7
French	67.8	85.4	88.1	90.4	92.7	3.8	.8
Welsh	60.8	72.3	80.	81.4	86.	5.4	.3
Germans	54.1	67.	78.7	82.6	87.2	6.7	3.1
French-Canadians	49.7	66.4	76.4	79.3	87.	4.4	.8
Swedes	45.3	62.1	75.6	78.	86.3	5.4	1.
Dutch	44.2	54.7	73.2	76.7	86.1	2.4	.3
Norwegians	41.	56.	65.1	72.	80.3	8.	.3
Danes	35.	52.2	65.5	71.4	80.1	4.5	.9
Spaniards	27.6	49.8	55.1	58.	81.6	8.4	2.
Finns	16.1	27.4	36.1	50.5	61.2	12.8	2.8
Russians	15.8	27.7	31.	45.3	56.1	22.1	8.
Italians	15.4	25.7	34.7	54.7	71.3	14.5	4.8
Portuguese	11.	22.	28.3	47.8	57.7	19.	3.3
Poles	11.	11.6	28.3	44.3	58.3	19.7	4.7
Hungarians	10.1	17.5	25.8	43.	70.7	20.3	7.
Roumanians	8.8	19.3	23.8	38.3	51.6	22.	4.6
Armenians	8.5	14.8	27.8	46.2	58.1	17.7	5.0
Czecho-Slovaks	8.2	16.4	21.1	36.	47.4	26.	9.5
Indians	8.1	27.7	33.4	54.3	83.	7.7	1.6
Jews, German	7.8	2.1	25.5	39.8	53.5	25.3	13.8
Bulgarians	6.9	14.6	16.4	19.7	43.1	21.9	7.0
Jews, Russian	6.1	18.	15.7	30.1	45.3	22.7	13.4
Greeks	5.9	17.7	18.	35.2	53.2	25.3	11.3
Syrians	4.3	13.8	18.	31.	41.1	21.4	9.
Serbo-Croatians	4.3	10.4	12.	10.3	30.4	18.6	8.
Mexicans	2.8	11.5	12.3	77.1	46.1	30.8	15.1
Japanese	2.3	12.1	13.	27.3	29.3	38.8	2.5
Filipinos	1.6	15.2	19.5	36.7	52.1	28.5	5.5
Negroes	1.4	9.1	11.8	38.7	57.3	17.6	12.7
Turks	1.4	10.	11.7	19.	25.3	41.8	23.4
Chinese	1.1	11.8	15.9	27.0	27.3	45.2	22.4
Mulattoes	1.1	9.6	10.6	32.	47.4	22.7	16.8
Korean	1.1	10.8	11.8	20.1	27.5	34.3	13.8
Hindus	1.1	6.8	13.	21.4	23.7	47.1	19.1

* EMORY S. BOGARDUS, IMMIGRATION AND RACE ATTITUDES (Boston: D. C. Heath and Company, 1928), p. 25.

between individuals or groups in terms of the activities the one is willing to share with the other. Such a test is known as a social-distance scale.

By means of a social-distance scale, Bogardus was able to measure the reactions of native-born Americans to various racial and ethnic groups. It should be indicated that the great majority of these Americans were of North European descent. They were asked to state to what relationships they were willing to admit the members of each listed group ("not the best or the worst members, but members whom they consider representative or average"). The results are given in Table 13. The social distance increases as one goes down the list. It is greatest for such groups as the Japanese, Negroes, Turks, Koreans, and Hindus, and least for those that come from northern Europe. The division is along the usual in-group, out-group lines.

SUMMARY

Social conflicts come to a close through a process of adjustment known as accommodation. One or both of the contestants may give ground for a variety of reasons, such as a consciousness of the futility of further resistance, or sympathy for one's opponent, or weariness with fighting, or the interference of organized society itself. Open conflicts are usually brief interludes between working arrangements of some sort.

These working arrangements may take a variety of forms, depending on the strength and spirit of the contenders and the attitude of the prevailing culture. The function of competition and conflict is to determine the relative social status of the contenders. If the issue is carried to the point of victory, the result is usually the subordination of the loser. Most accommodation takes the form of superordination-subordination. The contesting parties may, however, resort to compromise, each yielding something originally desired. Where yielding is not practicable, toleration may result. Here there may be still a large measure of antagonism, repressed in the interests of peace. Finally, the opponents may have a change of heart and experience conciliation or even conversion. Accommodation is thus a matter of degree and ranges from working together with a minimum of good will to working together in entire agreement.

Culture affects the outcome of conflicts by taking an interest in controlling some disturbances and ignoring others. Thus murder, over which our organized society shows great concern, is indicated as a personal or family matter in many primitive societies. Culture also controls conflict by indicating preferences as to how it shall be handled and terminated. Some societies, like the Kwakiutl, favor outright victory in important disputes, while other cultures, like the Chinese, urge compromise on the contestants.

While conflict and accommodation are going on, there may be also under way the process of assimilation, wherein differences are resolved and a unity of outlook established. Thus immigrants, in conflict with American folkways and seeking to effect some sort of accommodation to them, may become more and more Americanized, that is, gradually become assimilated. As a rule, this process leads to better adjustment especially if there is no special antagonism toward the one who is making the adjustment. Thus, in the case of an immigrant from northern

Europe, poor accommodation is largely due to his own limitations, his inability to speak the English language, and the like. When these impediments are removed, improved accommodation follows. When, however, the attitude of the majority group is one of antagonism, then the more nearly the members of the minority group approach the standards of the majority group, the more violent may the conflict become. So long as prejudice exists against the minority group, and they can be identified by their appearance or behavior, the least disturbing accommodation is in some subordinate rôle, as is well illustrated by the experience of the Negro in the United States. Particularly difficult is the problem of adjustment of the marginal groups who outgrow the old culture only to find no acceptance in the new.

Co-operation, conflict, and accommodation among individuals and groups may be regarded in terms of social distance, the amount of intimacy existing between them as evidenced in shared experience. Tests are available for the measurement of social distance in various fields. By means of such a test it has been possible to determine the relative status of ethnic and racial groups in the United States from the standpoint of the dominant group.

QUESTIONS FOR DISCUSSION

1. How is conflict distinguished from competition? Is there any causal relation between the two?
2. In what ways may conflict be resolved? Which is the most common way in our society? Why is this so?
3. What does Sumner mean when he refers to accommodation as "antagonistic co-operation"?
4. What is the principal social function of competition and conflict? Illustrate.
5. Is peace (accommodation) at any price a good thing? Defend your position.
6. Why are Negroes in the United States now less well accommodated than previously? What is the significance of this?
7. What kinds of differences admit of compromise? What kinds do not?
8. Is compulsory arbitration of strikes a good thing?
9. How does assimilation differ from co-operation?

10. Why is assimilation, on the whole, more difficult to achieve than accommodation?
11. Does assimilation of immigrants necessarily entail the complete loss of the immigrant culture?
12. What do we mean by the term, marginal man? Is the number of marginal persons increasing or decreasing in our society? Why?
13. How does Bogardus measure "social distance" between races? To what other types of social phenomena might his method be applied? Illustrate.

TOPICS FOR REPORTS

1. The accommodation of the American Indian.
2. Foreign-speaking associations as instruments of accommodation.
3. The interrelations of amalgamation and assimilation.
4. The accommodation of second and third generation Orientals in the United States. (See WILLIAM C. SMITH, AMERICANS IN PROCESS. Ann Arbor: Edwards Brothers, 1937.)
5. Ascendance-submission in a boys' gang. (Cf. F. THRASHER, THE GANG. Chicago: University of Chicago Press, 1927.)
6. The contribution of the Negro to American culture.
7. PAULINE V. YOUNG, THE PILGRIMS OF RUSSIAN-TOWN (Chicago: University of Chicago Press, 1932). A study of the conflicts and accommodation of the Russian Molokan sect of Southern California.
8. Social distance between organized groups on your campus.

SELECTED READINGS

BOGARDUS, EMORY S., IMMIGRATION AND RACE ATTITUDES. Boston: D. C. Heath and Company, 1928.

The fullest discussion of the concept of social distance, in operational terms. Contains valuable studies of the attitudes of races and ethnic groups toward one another. Although the Bogardus social distance scale and methodology have been refined by Thurstone, the newer techniques yield substantially the same results.

HART, HORNELL, THE SCIENCE OF SOCIAL RELATIONS. New York: Henry Holt and Company, 1927.

For present purposes, valuable for its cases and practical problems of conflict and accommodation. Stimulating suggestions for working out creative adjustments.

PARK, ROBERT E., and ERNEST W. BURGESS, INTRODUCTION TO THE SCIENCE OF SOCIOLOGY.

The basic source for discussions of the concepts of accommodation and assimilation. Chapter X treats the forms and functions of accommodation; chapter XI deals with the biological aspects of assimilation, the fusion of cultures, and Americanization as a problem in assimilation.

SMITH, W. C., AMERICANS IN THE MAKING. New York: D. Appleton-Century Company, 1939.

The most complete account now available of the "natural history" of the assimilation of immigrants to America. Abundant source material.

SPYKMAN, N. J., THE SOCIAL THEORY OF GEORG SIMMEL. Chicago: University of Chicago Press, 1925, pp. 95 ff.

A penetrating analysis of the forms of accommodation, such as compromise, subordination, and superordination.

STONEQUIST, EVERETT V., THE MARGINAL MAN. New York: Charles Scribner's Sons, 1937.

The fullest discussion available of marginal human types, both racial and cultural.

THOMAS, W. I., and F. ZNANIECKI, THE POLISH PEASANT IN EUROPE AND AMERICA. New York: Alfred A. Knopf, 1927. (The two-volume edition.)

Personal documents (letters exchanged between members of Polish peasant families and an extended autobiography provided by a Polish immigrant to the United States) illuminate the problems of cultural conflict, accommodation, and assimilation. An epochal book in methodology and the scope of sociology.

WIRTH, LOUIS, THE GHETTO. Chicago: University of Chicago Press, 1928.

A careful study of the ghetto as a "natural area" and a type of cultural isolation, based on both historical sources and the ghetto in Chicago.

PART V

COMMUNITIES

IN THE PRECEDING SECTION, various group patterns and processes were set forth, together with their significance for human experience. No treatment was accorded, however, an important type of human group: the locality group, or community. A community may be thought of as the total organization of social life within a limited area. Human social life is characteristically carried on in such communities. They are the loci of group activity, of institutional organization, and of the development of human personality.

The present section considers this important factor of community from the standpoints of settlement and population. What determines the location of human communities, their size and their physical pattern? Chapter XIV, "Human Ecology," undertakes to answer these questions, tracing the changes in the nature of human communities attendant upon the growth of culture. Chapter XV, "The Distribution of Population," appropriately considers the actual distribution of population at the present time by continents and races, together with the recent changes in these respects and the principal reasons therefore. The elements of size and composition of population are so important in their social consequences that Chapter XVI, "The Growth of Population," considers, in detail, the factors of migration, births, and deaths, by which populations change. The social significance of the declining birth rate and the changing composition of the population receive special attention. Chapter XVII, "Characteristics of Communities," which completes the section, presents some of the outstanding contrasts between various kinds of communities, and raises the interesting question of the adequacy of man's adjustment to each.

XIV. HUMAN ECOLOGY

ECOLOGY IS the study of the relation of organisms to their environment. For instance, birds spend the summer in one type of environment, and as winter comes they migrate southward to a similar environment. Trees may grow to great heights in lowlands of suitable temperature and air pressure, but their growth is stunted in mountains where the temperature is lower and the air more rare. Salmon are found in large numbers at certain seasons of the year near the waterfalls closest to the sea. These instances suggest that types of environment affect greatly both the number and kind of organisms found in different localities. Ecology is a "natural history" of organisms, in contrast to the special studies of physiology or heredity. Ecology does not emphasize inquiry into the evolution of the species, but rather is concerned with the relations of environment to numbers and to the spatial arrangements of groups.[1]

Human ecology is a branch of general ecology, but it is concerned, as the name implies, with the relations of human organisms to their environment. The field is very broad,[2] but human ecologists have been concerned particularly with the problem of man's spatial arrangements, and their bearing on his social life. The people living in the swamps of southern Louisiana have a different type of community from those in the Appalachian Mountains of Kentucky, and both are different from the community arrangement of Middletown. Within communities as well, there are diverse localities, each with its distinctive way of life. One group may be found down by the water front or over across the railroad tracks, another on Main Street, and still another on Woodlawn Boulevard.

The habitations of men have also varied according to environment the

[1] For general information concerning plant and animal ecology, the reader is referred to the following works: A. S. PEARSE, ANIMAL ECOLOGY (New York: McGraw-Hill Book Company, 1926); J. E. WEAVER, PLANT ECOLOGY (New York: McGraw-Hill Book Company, 1929); W. C. ALLEE, ANIMAL LIFE AND SOCIAL GROWTH (Baltimore: Williams and Wilkins, 1932); CHARLES ELTON, ANIMAL ECOLOGY AND EVOLUTION (Oxford: The Clarendon Press, 1930).

[2] An aspect of human ecology, the relation of environment to physical man, was considered in Chapter IV.

world over and as far back as one can go in time. To the desert of Arabia a nomadic people is best adapted, while the desert of New Mexico has a people living in stable houses of adobe in cliffs and on mesas. When northern Europe was covered by an ice cap such as Greenland has today, small bands of men living near the receding ice found their adaptation by living in caves. This chapter is to be devoted to a study of the spatial distribution of men in relation to their environment. The analysis will be made in terms of the factors causing the type of living arrangement.

NATURAL ENVIRONMENT IN HUMAN ECOLOGY

For plants and animals, the environment that determines location is altogether natural environment. Nature dictates the distribution of these organisms. Animals and plants have their appropriate dwelling place or habitat. The fish are in the sea, the birds in the air, not the reverse. Moreover, certain fish are adapted to particular regions. Every fisherman knows that trout are not to be sought in the tropics, nor tuna in the arctic zone.

Man's environment, on the contrary, includes culture, which has the effect of lessening the control of nature over his place of residence. Man cannot live naturally in the ocean, but he can do so with the aid of the submarine. While unsuited for life in the air, man circumvents this limitation by such inventions as the balloon and the airplane. Similarly, man is not naturally adapted to life in the cold northern regions. There is evidence that the progenitors of man lived in trees; and even yet man seems excellently adapted to a diet of fruits and greens. It does not seem probable, then, that man was native to the climate found in the antarctic. But man lives in such regions now, thanks to clothing, shelter, and fire. The effect of such cultural traits is to make man, to a degree, a master of cold, and to lessen the force of natural environment in determining where man may live. Man is the only large animal so widely distributed as to occupy every quarter of the globe.

This conquest of climate goes on. The tropical environs around the Panama Canal are made livable for the white man of the north by modern sanitation and screening. The control of indoor temperatures in summer or in hot regions is the newest significant step in the production of artificial climate, one which may produce a movement of population southward. The course of civilization has been northward during

the historical period.[1] Early civilizations grew up on the Euphrates, the Nile, and the Yangtze where the climate was hospitable for agriculture and where transportation connections were numerous. But the new inventions on which these cultures rested spread northward, especially as the control over climate became more effective, and the inventions using coal were developed. It seems probable that the conquest of climate southward may turn the population movement in that direction. This movement could be made possible by the artificial production of cooler temperatures indoors, by the production of power from the differential in temperatures of bottom and surface waters in the tropics, by the cheaper production of electricity and its transmission greater distances, and by scientific medicine that will deal successfully with tropical diseases. In the tropics, the blonde races have not prospered. Protective pigment of darker color has developed, or there has been a weeding out by nature of blondes. It is quite conceivable, however, that the production of artificial climate in the tropics would permit an adaptation without a darkening of the pigment.

It may be concluded that the advances of culture serve to liberate man somewhat from the restrictions of ecological forces to which other animals are subject. This point will be made even more explicit by the account which follows of the relation of the human community to the level of culture.

The Evolution of the Community

Pre-historic types

Hunting and food-gathering. Among peoples with a simple culture, such as hunters, there is usually no satisfactory method of transporting food, and they must live where the food is to be found. When the animals hunted wander over great distances, as do the caribou, the hunters must follow. The result is a nomadic mode of life. Again, in the case of peoples who live on roots, herbs, and fruits, the supply may readily become depleted; since their facilities for storing food are poor, they may be forced to move on. Thus those on the lowest cultural levels lead something of a wanderer's life. It is to be noted, however, that while forced by scarcity of food to change their position, the movements of these peoples need not be aimless and lacking in pattern. They may rather take up positions at each of a number of camps in a circuit.

[1] S. C. Gilfillan, "The coldward course of progress," Political Science Quarterly, 35:393–410, September, 1920.

They generally make the rounds, as it were, of their temporary dwelling places, somewhat like the migratory laborers who follow the crops in the United States today.

While life on the lower levels is partly nomadic, certain exceptions are to be noted. Fishermen will live in villages that remain in the same locality for a long time, as is true of the Kwakiutl Indians of the Pacific northwest coast, who depend largely on the run of salmon. Fixed settlements will also be occupied by peoples who live off the products of long-lived trees, as in the case of certain California Indians whose main diet is of acorns.

Hunting often means a life of feast and famine, since food supplies vary with the seasons, and if the animals hunted are nomadic, there is less assurance of continuity of supply. Hunting becomes a hazardous life with a high death rate. Scarcity of food thus means a small population for an area. The bands of hunters often consist of from ten to one hundred persons or thereabout; and great stretches of territory may be occupied by only a small number of bands. The ratio often quoted is one person to twenty-five square miles. This is, of course, an unrealistic figure, since each unit of twenty-five square miles does not actually contain just one individual. Rather, life goes on in small groups that may be more or less widely separated, and some of the groups may contain many more families than others.

Some of the Indian hunters of Canada have settled sufficiently to allocate hunting territory to individual members, but this procedure is very rare. In general among the American Indians, land is thought of as the hunting ground of the tribe. Since each group becomes identified with a particular area, there is ordinarily no crowding into favored regions. The idea of ownership of land does not exist, which helps to explain the difficulty occasioned by the white men who "bought" land from the Indians.

The smallness of the band of hunters does not necessitate much planning of the habitations of the members. The community sometimes assumes a definite pattern, with the houses arranged in a particular order around the house of the chief, just as the order of seating in a house is in a pattern for men and for women and for varying ages and ranks. Those who are neighbors in one camp will be neighbors in all the camps the group sets up. But such arrangements are based essentially on social psychological considerations rather than on ecological ones, as may be inferred from the plan of Shilluk village in Figure 54.

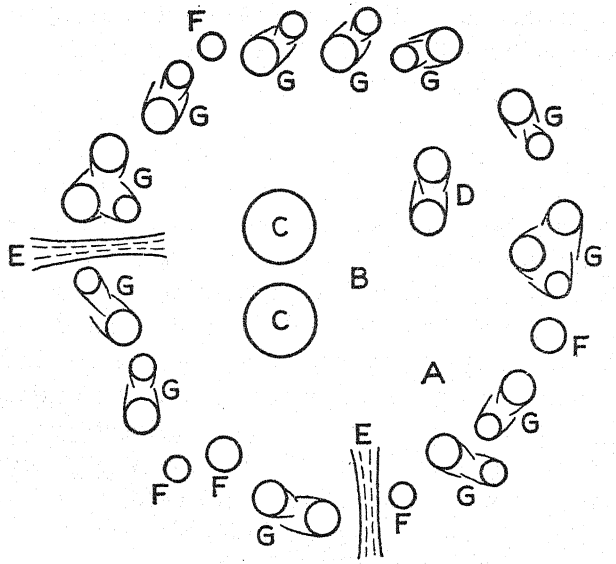


FIGURE 54. PLAN OF SHILLUK VILLAGE

A, *village tree;* B, *free place for dances or cattle;* C, *stables;* D, *temple;* E, *paths to villages;* F, *single dwellings for old people;* G, *family dwellings. Ecological factors do not seem particularly significant in determining the pattern of this primitive village. From* ROBERT H. LOWIE, AN INTRODUCTION TO CULTURAL ANTHROPOLOGY, *p. 93. (Originally from* HOFMAYR.) *Copyright, 1940. Reprinted by permission of the publishers, Farrar and Rinehart, Inc., and George G. Harrap & Co., Ltd.*

Pastoral. Among pastoral people the community is generally somewhat larger than among hunters. Size of population is a function of the food supply, and the latter depends on methods of procurement. An improvement in method occurs when tame animals furnish food. Such domestication, however, is feasible with only a few kinds of animals. The difficulty is exemplified by the Lapps, who followed a half-tamed herd of reindeer about as it grazed. The breeding of domesticated animals makes possible a larger population, especially in dry, grassy regions which would otherwise be inhospitable.

In caring for herds there is not as much inducement for members of the community to break away from the group as there is in the case of hunting, nor is there as much need for the group as a whole to wander. In the pastoral economy it is likely that the number of temporary abodes will be few and the same places will be occupied over and over again. There is, of course, great variation within the general pattern of pastoral life. Some pastoral peoples are more mobile than some hunters, but

taking the situation as a whole, the pastoral economy [1] represents an advance over the hunting economy in the direction of cohesive, settled community life.

Agricultural. When food can be had by planting seed, the basis is laid for an even larger and more stable population. Although agriculture is something of a gamble, it is not so uncertain as hunting. A more regular food supply is possible, and with plow culture a much more abundant supply as well. Farming is an occupation that binds the worker to the soil. The farmer must be on hand to till and sow and harvest. Agriculture fosters the stable human community.

Before the rise of agriculture, the arts of hunting disposed peoples to live where the game was, in the mountains, at the waterfalls, on the plains with the herd, where the fruit trees or edible roots were plentiful. Agriculture meant a change in the distribution of population, namely, the congregation of peoples in villages in the fertile river valleys, on the plains, or on level pockets in the mountains.

THE PRIMITIVE VILLAGE

The village is man's oldest permanent community. "We do not know," writes Kropotkin, "one single human race or one single nation which has not had its period of village communities." [2] The anthropologists have found traces of Neolithic villages which existed five thousand or more years ago. Probably the most impressive of these are the lake dwellings of Switzerland and near-by sections of Germany, France, Italy, and Austria. Here were discovered houses built on platforms, which were supported by piles driven into the lake bottom. Occasionally bridges connected these platforms with the shore, where lay the fields and pastures.

It is important for the reader to note two things in particular about the primitive village. One is the prominent part played by kinship in effecting group solidarity. Due to the smallness and relative isolation of primitive communities, considerable in-breeding occurs, so that a large proportion of the population is related by blood. In such a primitive community, made up of a relatively few families, the feeling of familiarity is great. In Samoa, for instance, if a child wanders off from

[1] Only a small percentage of primitive people are pastoral. The main stream of cultural evolution moves from hunting to agriculture. Cf. L. T. HOBHOUSE, G. C. WHEELER, and M. GINSBERG, THE MATERIAL CULTURE AND SOCIAL INSTITUTIONS OF THE SIMPLER PEOPLES (London: Chapman and Hall, 1915), chap. I.

[2] P. KROPOTKIN, MUTUAL AID (New York: Alfred A. Knopf, 1925), p. 96.

home, his parents do not worry about him, for he has numerous relatives on the island who will keep an eye on him. The prominent rôle of kinship in the early village is nowhere more clearly evident than in China, where for more than four thousand years the village has been the basis for the continuity of the civilization. Families with as many as 100 members at home have continued to live collectively and often under one roof for as many as seven to nine generations.[1] In some cases, families become so large as to constitute a whole community. Much the same condition has been observed in the Russian *mir* and the Polish peasant community.[2] The old form of village, *vill*, means kin.

The second point to be remembered is that the primitive village was organized on a collectivist basis, so far as land was concerned. While land was generally not considered property, there was nevertheless a close identification of the whole people with the land. In some cases the land remained under the control of the clan as a whole; in others it was parceled out to family units in accordance with the number of males in the family or some other basis. But always the land was a group trust. The close ties of the inhabitants with one another and with the land led to a highly developed sense of identification with the local community.

THE MEDIEVAL VILLAGE

The medieval village was an intermediary form between the primitive community and the village of our own day. By the time of the Middle Ages the village had undergone a fundamental transformation on both of the basic points indicated in the preceding paragraphs. Kinship no longer played such a prominent part in uniting the population, nor did the land belong any longer to the group as a whole. It usually belonged to a lord of some sort, to the king, to a member of the nobility, or to an ecclesiastical official. The land, in Europe, was worked by three classes of tenants. The free tenants had the largest holdings and the easiest terms. The villeins had moderate grants in return for which they were required to render certain services to the lord of the manor. The cotters had the most meager holdings of all. What were the bonds that bound these people to the community? One was their common subjection,

[1] KIANG HANG-HU, "CHINESE FAMILY SYSTEM," ANNALS OF THE AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE, 152:40, November, 1930.

[2] W. I. THOMAS and F. ZNANIECKI, THE POLISH PEASANT IN EUROPE AND AMERICA (New York: Alfred A. Knopf, 1927).

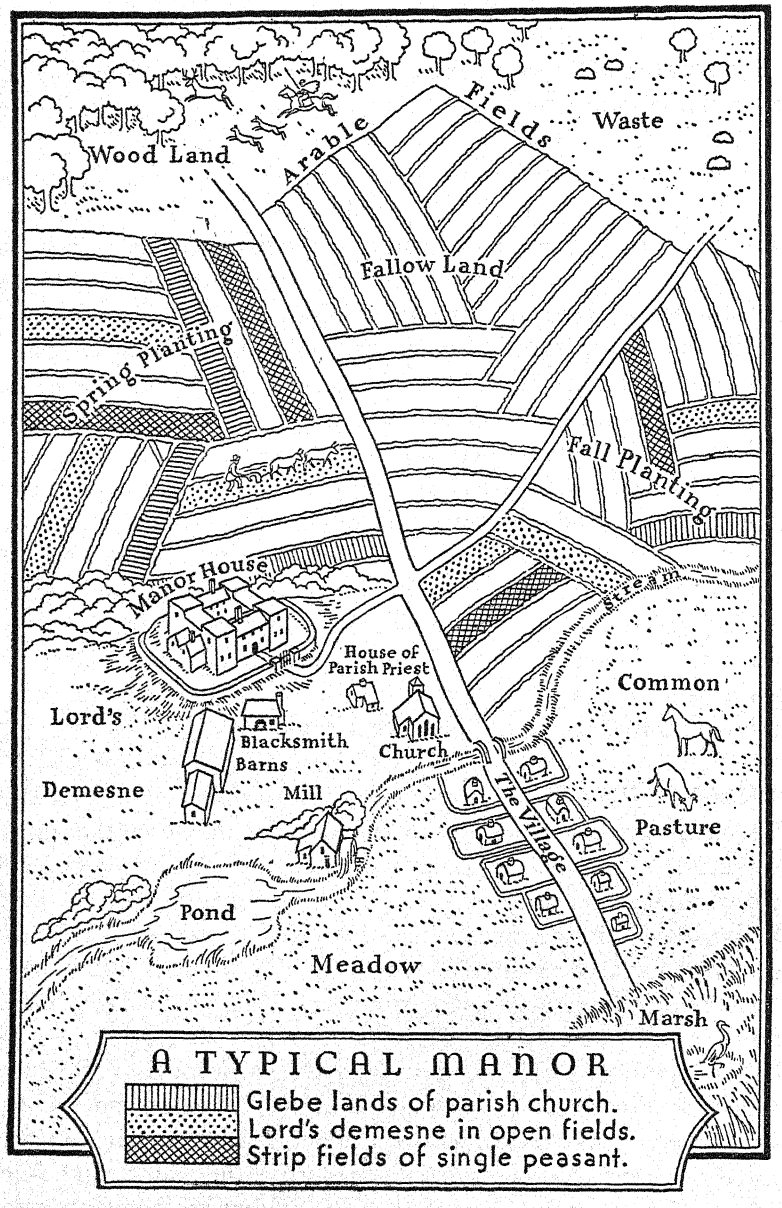


FIGURE 55. PLAN OF A MANORIAL VILLAGE IN EUROPE IN THE MIDDLE AGES

The organization of the village shown above was geared to specialization and represented an adjustment to agricultural life. There were woodlands and meadows for various degrees of participation in common use. The strips of land were adapted to rotation of crops and usually one of the three fields lay fallow. If there was a hill, the lord's house usually occupied it, as it was a position of advantage for protection in case of raids or wars.

their serfdom. Another was their occupational unity. Still another was their co-operative activity, for there were certain sections of land reserved to the lord which had to be worked by all the serfs.

The common practice in the early Middle Ages was for the serfs to live in villages and to cultivate parcels of land scattered some distance away from the dwellings. In Europe particularly the land was cultivated in small strips, a system suited to garden cultivation with small tools, but one which would scarcely be adequate to the modern type of cultivation with big plows. Near such a village was a meadow used by all for the grazing of a limited number of cows, sheep or goats. Often on a hill close by was the manor house or castle of the wealthy chief who acted as leader in furnishing armed protection against marauders. The plan of such a community is shown in Figure 55. Such an arrangement was characteristic of the form feudal communities took in various lands. By comparison with ecological organization among the Shilluk, the situation in feudal communities represents a development in the direction of greater specialization and differentiation of areas, based on the differentiation of social classes.

THE MODERN AMERICAN VILLAGE

Even at the present time the village continues to be an important habitat for a large proportion of our population, a fact which has been obscured by the recent phenomenal growth of cities. In the incorporated places under 1000 population of the United States in 1940 there were approximately 4,316,000 persons; and in the same year the villages (population: 1,000–2500) accounted for more than 5,000,000 persons. A comparison for the ten-year period, 1930–40, reveals the fact that the total population in the incorporated places under 2500 increased.

However, great changes have been wrought in the village as a kind of community. The modern village makes an interesting object for comparison with the village of primitive society. Increased size and mobility of population have reduced greatly the importance of the kinship bond. The land is neither owned collectively nor worked jointly. What the residents have in common is a habitat and a set of social relationships and activities. Although these two things are sufficient to cause an individual to identify himself with his village community, it hardly seems likely that the identification could be so complete as in

former times. The automobile has decreased somewhat the dependence of the villager on his village community.

THE OPEN-COUNTRY NEIGHBORHOOD

Important as are the villages in American life, they do not encompass so large a population as do the individual farms, which go to make up the so-called open-country area. In 1940, about 30,500,000 people in the United States were living on separate farms, or about six times as many persons as were living in villages, as defined above. In addition, approximately 8,000,000 to 10,000,000 persons were to be found in unincorporated territory. When, however, the figures for 1940 are compared with those for 1930, it is found that the proportion of the total population living in the open country decreased during the decade. Relatively fewer people live on farms than formerly; relatively more live in villages and towns. The term open country is usually applied to farm country where the farms are not clustered closely enough together to be called a hamlet. The open country today, however, is being infiltrated a little by commercial enterprises, that is to say, roadside stands and stores at the crossroads, made possible by the extension of the paved highway.

The open-country development is peculiarly a product of the new world. Isolated farms were exceptional in ancient Rome and later. Even in the American colonies the agricultural community was a compact area. For an explanation of the special development of separated farms in the United States we must turn to the frontier movement. With a vast expanse of virgin land stretching to the west, it is understandable how the pioneers would spread out over it in the ample fashion of the isolated farm.

What is the relation between open-country life and community life? It is evident that the individual, separate farms do not constitute a community. How are the boundaries of an open-country community to be determined? Galpin [1] followed the expedient of recording the addresses of all the farmers who paid visits to the local centers for trading and other purposes. By plotting these addresses on a map, and drawing

[1] C. J. GALPIN, A METHOD OF MAKING A SOCIAL SURVEY OF A RURAL COMMUNITY, also THE SOCIAL ANATOMY OF A RURAL COMMUNITY.

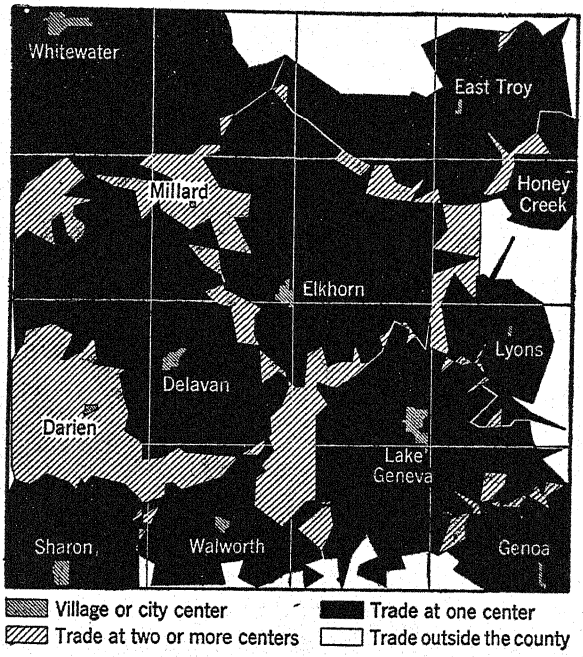


FIGURE 56. TRADE COMMUNITIES

These areas are for general trading. The lines for special items like clothing, hardware and banking do not necessarily conform to the general trading boundaries. C. J. GALPIN, THE SOCIAL ANATOMY OF AN AGRICULTURAL COMMUNITY, *Research Bulletin 34, May, 1915, Agricultural Experiment Station, University of Wisconsin, Madison.*

a circle about them, the limits of the open-country community were determined. The local community was thus regarded as the smallest area in which the basic needs of the population might be satisfied.

THE CITY

Rural life continued to predominate for many centuries in the West, as it still does in the countries of the East. Yet from early times there were some cities, like those in the Egyptian, Sumerian, Aegean, and Mayan civilizations. These cities were unlike our own, in that commerce and industry played a smaller part in their founding. In some cases the early city served as a place of refuge. The word, town, which is the modern English equivalent for city, originally meant an enclosure, like ancient Troy with its massive wall. Other cities, particularly in Egypt and Maya, served as religious headquarters, the temple being the center of the community.

"The cities of the Middle Ages show a very different picture. Commerce and industry made them what they were." [1] In the tenth century, after the barbarian raids ceased, commerce was revived by reconnection with the markets of the East. Cities like Venice, Bruges, Ghent, and Ypres flourished. Although there was some manufacturing, as of cloth in Flanders, the mainstay of most cities was commerce. Out of Venice went wheat and wine from Italy, wood from Dalmatia, salt from the lagoons adjacent to Venice, and slaves from the Adriatic. Here we have principally seaport cities, made possible by the existence of the boat. Such manufacturing as did exist was, of course, on the level of handicraft economy.

These early cities were smaller and fewer in number than the largest cities of the present time. The problem of conveying food, fuel, and manufacturing materials to the city population had to be taken care of by the packsaddle, cart, and small boat. Under the circumstances cities could not be so large or so numerous as they can with the benefit of the steamboat and the railroad. Constantinople, in the eleventh century, is thought to have had almost a million inhabitants, and the same estimate is made for Rome at the height of the Empire. But "a million represents about the upper limit in size for cities in the pre-steam age." [2]

The question may be raised at this point as to what constitutes a city. At the present time the United States Bureau of the Census classifies as urban communities all incorporated places with a population of 2500 or more persons. This division on the basis of size alone hardly seems to be realistic, for there are communities with more of the urban way of life than some cities with larger populations.[3] On the whole, however, the factor of large numbers is essential for the production of those features of social organization which we associate with city life. While the city is a complex phenomenon, a central characteristic is the fact that the people live by means other than working the soil. A city does not produce its own food. Since food must be imported, the city cannot exist without adequate transportation.

[1] HENRI PIRENNE, MEDIEVAL CITIES (Princeton: Princeton University Press, 1925), p. 136.

[2] WARREN S. THOMPSON, POPULATION PROBLEMS (New York: McGraw-Hill Book Company, 1935), p. 300.

[3] Cf. LOUIS WIRTH, "URBANISM AS A WAY OF LIFE," AMERICAN JOURNAL OF SOCIOLOGY, 44:1–24, July, 1938. The city is here defined as a "relatively large, dense, and permanent settlement of heterogeneous individuals."

Modern Communities

THE LOCATION OF MODERN CITIES

At the present time in the United States, less than one quarter of the population lives on farms, more than half in urban areas, as defined by the Bureau of the Census. This ecological situation is possible only because of power machinery. Power is used in transportation, so that foodstuffs or manufactured goods can be carried in large volume hundreds of miles within a day. Within cities power machinery in factories produces manufactured objects in great numbers, with the aid of the assembly line, the mechanical conveyor, and scientific management. At the same time the use in agriculture of scientific methods and of machinery driven by electricity or the combustion engine makes it possible for one quarter of the population to support the other three quarters, whereas one hundred years ago three quarters were required to feed one quarter. Since cities can now be located without much reference to the food-producing lands, it is clear that nature is less prone to point a dictatorial finger to the particular spots where men shall live.

The point just made, that nature does not, within limits, act in a deterministic fashion to fix the location and organization of human communities as it does those of other organisms, is of considerable importance. As has been stated, in agricultural times the aggregations of peoples were found along the river valleys where the land was flat and fertile and where there was water transportation. In antiquity Carthage was the center of a great grain region in northern Africa. In agricultural France the wealth, the chateaux, the arts were distributed along such valleys as those of the Loire and the Rhone. Before the coming of the Industrial Revolution to the United States, great plantations and antebellum homes were found in the fertile farm land of Virginia, Mississippi, Louisiana, and other southern states.

With the coming of mechanical power, a new geographical shift was made. In the power age, coal is the source of most power, and is bulky and costly to transport. The tendency is now for the manufacturing cities to be congregated not very far away from the sources of coal. Where iron and coal occur close together, we have the most favorable place for the multiplication of industrial cities. But as between the two raw materials, when separated, the blast furnaces tend to follow the coal rather than the iron. For instance, more factory towns are congregated around the coal of the Ruhr district than around the iron mines of Lor-

raine.[1] The same is true for cities around the coal fields of Illinois and Pennsylvania rather than around the Mesabi iron range. Also in an age with such inventions as steamboats and railroad trains, great cities arise at points where these two modes of transportation meet; for example, Boston, New York, Philadelphia, Los Angeles, San Francisco, and Seattle.

How geographical conditions and transportation combine to affect an area is well illustrated by tidewater Virginia, which was a center of culture in America in the eighteenth century. The many broad rivers in this long tidewater region provided transportation similar to that of Venice. Vessels from London came to the front yards of the various plantations and the captains delivered goods and took orders from the planters. Contact with centers of European culture was maintained and spread as far as the broad rivers ran in this region, and no farther, because roads were very bad and travel off the waterways was slow. The coming of the trans-Atlantic steamer and the railroad transferred the center of culture elsewhere. The railroads from North to South traversed the Piedmont region from Richmond to Washington on the western border of the tidewater region, because it was the short way and because it avoided the construction of bridges over the waterways near the coast. The big boats came only to a few big harbors and the tidewater region was passed by.[2] So it is that transportation and technological developments within a culture take up and discard the materials presented by nature, and effect great changes in the total pattern of community life.

THE IMPORTANCE OF LOCAL TRANSPORTATION

At the time that the factory was introduced, local transportation facilities were poor, consisting of carts, donkeys, horses and oxen. The many factory workers were compelled to live near their place of employment. Congestion of housing resulted. The situation was particularly pronounced in the larger centers, that is, those that had railroad connections in a number of different directions, for it was here that factories collected in large numbers. Land was at a premium, so families lived in houses built on top of other houses. Thanks to the elevator, these

[1] A. BERGLUND, "THE IRON-ORE PROBLEM OF LORRAINE," QUARTERLY JOURNAL OF ECONOMICS, 33:531–54, May, 1919. The organization of the Minnesota Steel Company at Duluth, Minnesota, seems to contradict this, but it must be remembered that coal is carried on the Great Lakes at exceptionally low rates (pp. 543–44).

[2] With the coming of the big ocean-going steamboat, the harbor at Bruges, Belgium, suitable only for small sailing boats, was replaced as a port for the region by the larger harbor at near-by Antwerp. In a similar way, Liverpool, England, replaced Chester as an important port.

piles of dwellings reached great heights. Never before had so many persons lived so close together.

The streetcar added to the population of the city by extending its boundaries. It also aided in the development and segregation of specific areas, as will be indicated below. The modern city has a financial section, a theater district, various ethnic areas, a rooming house district, a slum area, and so on. In earlier cities, lack of adequate local transportation prevented such a marking off of natural areas. There were market places, which were distinct from the residential districts, but on the whole segregation was less noticeable. The modern city is a community which has become highly differentiated in its parts on the basis of function. Certain divisions of a city are the result of political organization, such as wards, districts, and precincts. These political units are often of an artificial and arbitrary nature, and do not conform to any natural grouping of the population on a basis of economic position, race, or culture. The sociologist is less interested in the political divisions of the city than he is in what have come to be called the "natural areas." He wants to know, for example, where the slums are to be found and why they are so located.

ECOLOGY OF THE CITY

The pattern of a city results from the competition of industries, institutions, and social classes for advantageous positions. Businesses of all kinds are competing with one another for favorable locations; the rentals that they can afford to pay determine where they will be found. Land values are the key to the ecology of the city. In every large city there are usually two areas of highest land value: the central shopping district and the central banking area.[1] These areas are called centers of dominance, because they influence the positions which the other areas occupy. Any shift of expansion in the central business district of a city is likely to have its effects in the displacement of surrounding districts.

Chicago. About this center of dominance, the downtown commercial area, are to be found the other natural areas of the city; for purposes of representation, these may be shown as concentric circles, somewhat like the age rings of a cross-section of a tree, as seen in Figure 57.[2]

[1] ROBERT E. PARK, "HUMAN ECOLOGY," AMERICAN JOURNAL OF SOCIOLOGY, 42:1–16, July, 1936.

[2] Figure 65 is taken from ROBERT E. PARK, ERNEST W. BURGESS, and R. D. MCKENZIE, THE CITY, p. 55. There are some cities in the United States, such as New Haven and Cleveland, and many in other lands, that do not conform to this picture. (See M. R. DAVIE, "THE PATTERN OF URBAN GROWTH," STUDIES IN THE SCIENCE OF SOCIOLOGY, edited by G. P. Murdock. New Haven: Yale University Press, 1937, pp. 133–61.) Such variation is to be expected, since as was seen the ecological arrangement represents a conjuncture of cultural and geographical factors, and both of these may vary considerably in different places.

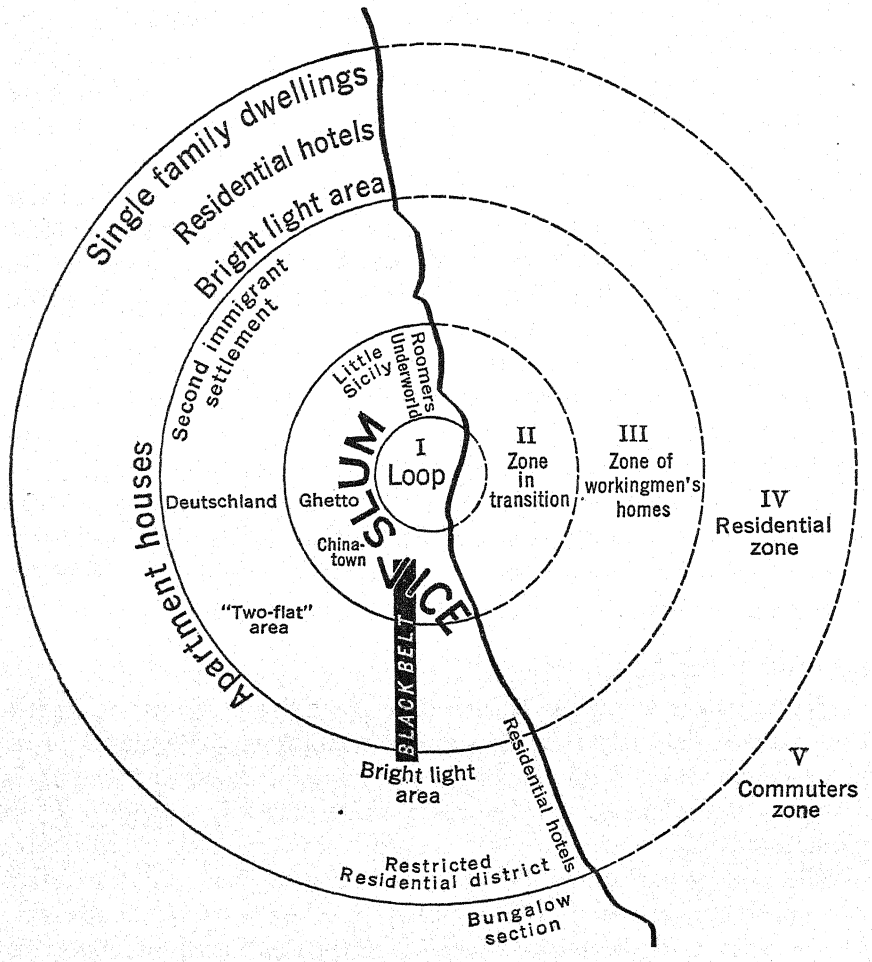


FIGURE 57. SCHEMATIC DESIGN OF THE ECOLOGY OF CHICAGO

The first ring indicates the business district, the second ring shows where the business district impinges on the residential section, and the outer ring is a region of newer residences within the city. Special localizations are indicated within these rings, which extend in reality only to the water front, which is indicated by the dark wavy line in the diagram. From R. E. PARK *and* E. W. BURGESS, THE CITY, *p. 55 (Chicago: University of Chicago Press, 1925).*

At the heart of the city (the Loop in Figure 57), is to be found the central commercial area. Here are the retail merchandise establishments that can afford a high rental, for example the specialized shops in jewelry and furs, and the huge unspecialized department stores. Within this compact area are also located the buildings of city government, and a

scattering of service units such as drugstores and restaurants. Close by the central area, if not actually within it, are a number of other enterprises. Great hordes of human beings are brought into the city every day and taken out again at night; hence the passenger terminals must be situated downtown. There must be housing facilities for those who come and go, so the great hotels are likewise to be found here. Here too is the wholesale merchandise center, conveniently close for the buyers. Because of the very high rentals, factories usually avoid this area, but a few find it both possible and desirable to be located here. In New York City, for example, the women's cloak and dress industry is located downtown. Newspaper plants find it to their advantage to be rooted here also. The play interests of the large public are also provided for in this area.

The downtown area includes also a number of residential districts. The rich have their special neighborhood, the so-called Gold Coast. These stately homes are maintained partly because of their closeness to the heart of city life, and partly because of sentiment, the houses having been owned through a number of generations of the same family. However, as the business section of the city expands, it exerts a great pressure on these homes, and they are gradually given up either for a de-luxe suite in one of the new apartment hotels or a home in the country.

Next to the central business district, and surrounding it, there is to be found an area which is in a state of deterioration. At one time it was occupied by residences, but now, invaded by business and light manufacturing, it is in a state of transition. In due course of time it may be swallowed up by the central business district. Meanwhile it is neither an adequate housing area nor a business district, and may rightfully be called an "interstitial area." The houses, because of the impending changes, are sorely neglected. Here are the slums, the "blighted areas" of poverty, delinquency, and disease. Coincident with the slums, or overlapping them, are often the clusters of special cultural or racial groups, the Ghetto, "Little Sicily," "Greektown," "Chinatown." In this vicinity there are also to be found the rooming houses, occupied largely by poor unmarried men and women, many of whom are without friends or relatives in the city and are therefore very lonely. Here too will be quartered the Bohemian groups: the non-conformists, the individualists, the "queer folks." The underworld also makes this area its headquarters; it is easy to drop out of sight in an area so deteriorated in its physical structure and so varied in its human element. Attempting to offset the degradation are the missions and the settlement houses.

Beyond this transition area lies one which duplicates on a smaller scale the central area and its appendages. Here are also to be found a number of commercial centers and their affiliates. It is the locality of skilled workers who wish to be fairly close to their work. To meet their needs, little local business districts arise, including for instance small retail stores, neighborhood theaters, and branch banks. This area is characteristically one of second immigrant settlement. Many come here having "escaped" from the slums. Their children in turn may later move farther out to the city rim or even into one of the suburbs.

Where this in-between area meets the open-country, it breaks down into an ill-defined urban fringe. "It is in part residential, in part industrial, in part quasi-agricultural, and in part devoted to more or less temporary open-area types of development." [1] Many of the very wealthy have their estates here. Some formerly lived in the Gold Coast section, but have come out to the city's edge. In due course of time, they may be forced still further out into one of the exclusive suburbs. In this outer residential zone there are also more modest but attractive single-family dwellings. Such industrial development as takes root here is generally part of the movement for decentralization, an attempt to avoid the high rental costs near the freight terminals in the city proper. The large stretches of unbroken country make this region a good one for the cemetery, the golf course, the country club, the amusement park, and the airplane landing field.

Rochester. That the relatively free economic competition of individuals and institutions prevailing in the United States favors an urban ecological pattern of concentric circles, provided the topography is suitable, is shown by the pattern of Rochester, New York. Rochester is "topographically homogeneous"; that is, there are no important physical barriers to the expansion of the city. Its concentric development is shown in Figure 58.

When the natural areas of the city are compared according to a composite of ten social indices of social disorganization, the most disorganized area (Below Average II) is found in two solid blocks around the city's point of origin, a gristmill established in 1789 at the upper falls of the Genesse River, shown in the accompanying map between tracts 2 and 6. As one moves out toward the periphery, the areas, with slight irregularities, are found to be better organized, the best organized areas (Above

[1] NILES CARPENTER, THE SOCIOLOGY OF CITY LIFE (New York: Longmans, Green, 1932), p. 99.

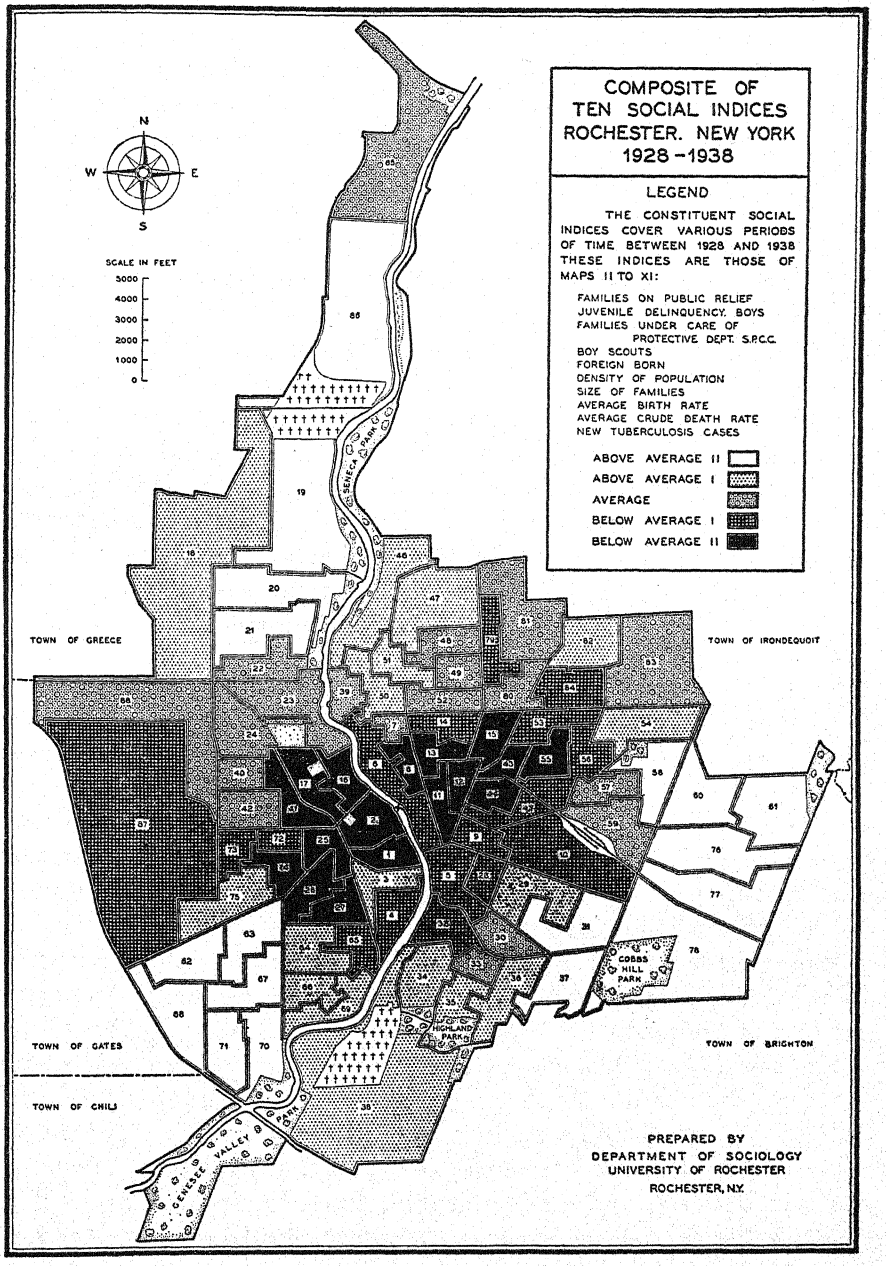


FIGURE 58. DISTRIBUTION OF SOCIAL INDICES IN ROCHESTER, NEW YORK

The indices of social disorganization and of other social phenomena correlated with it are found to be highest in the center of the city and to decrease toward the periphery. From R. V. BOWERS, "ECOLOGICAL PATTERNING OF ROCHESTER, NEW YORK," AMERICAN SOCIOLOGICAL REVIEW, *4:181, April, 1939. Data for map collected by* LUTHER FRY.

Average II) being located in three blocks at the northern, southwestern, and southeastern extremities of the city. This study supports the findings of researches in Chicago [1] that in general the incidence of social disorganization diminishes as the distance from the center of the city increases.

In this connection it is important to note that the location of the population is only secondarily a geographic phenomenon, the chief causal factor being the economic and cultural status of the inhabitants. Since there is competition for space, those with the lowest economic, ethnic, or racial status are forced to accept the areas of minimum choice: the slums. It is of the utmost importance that these economic and cultural factors determining the place of residence of individuals be recognized, else undue emphasis may be placed on the factor of location in accounting for social disorganization. The slum area contributes to the high delinquency rate, but these delinquents are in the deteriorated area because they are poor. The map of Rochester in Figure 59, showing city areas according to economic status, conforms to the map of social disorganization in Figure 58.

ECOLOGICAL PROCESSES

In an expanding economic order such as ours today, where the situation is highly dynamic, the character of urban communities undergoes frequent change. The growth of business and manufacturing, the increasing population, and improvements in transportation are factors disturbing the existing ecological pattern and requiring readjustments. The expansion of the central business district, for example, encroaches on the surrounding residential districts, forcing individuals in these areas to move further out. Invasion, as the movement of new groups of individuals or institutions into an already occupied territory is called, may result either in the displacement or in the subordination of the older residents or institutions. For example, immigrants and Negroes generally enter a city at the points of low resistance, at or near the center. As they become better established economically they tend to move out and locate in new areas, causing a change in the character of the neighborhood, a process termed succession by the ecologist.[2] The ecological processes [3] such as segregation, centralization, decentralization,

[1] CLIFFORD SHAW, DELINQUENCY AREAS (Chicago: University of Chicago Press, 1929). See also R. E. L. FARIS and H. W. DUNHAM, MENTAL DISORDERS IN URBAN AREAS (Chicago: University of Chicago Press, 1939).

[2] R. E. PARK, "SUCCESSION, AN ECOLOGICAL CONCEPT," AMERICAN SOCIOLOGICAL REVIEW, 1:172–79, April, 1936.

[3] For a discussion of ecological processes see R. MCKENZIE, "THE SCOPE OF HUMAN ECOLOGY," THE URBAN COMMUNITY (ERNEST W. BURGESS, editor); also M. A. ALIHAN, SOCIAL ECOLOGY.

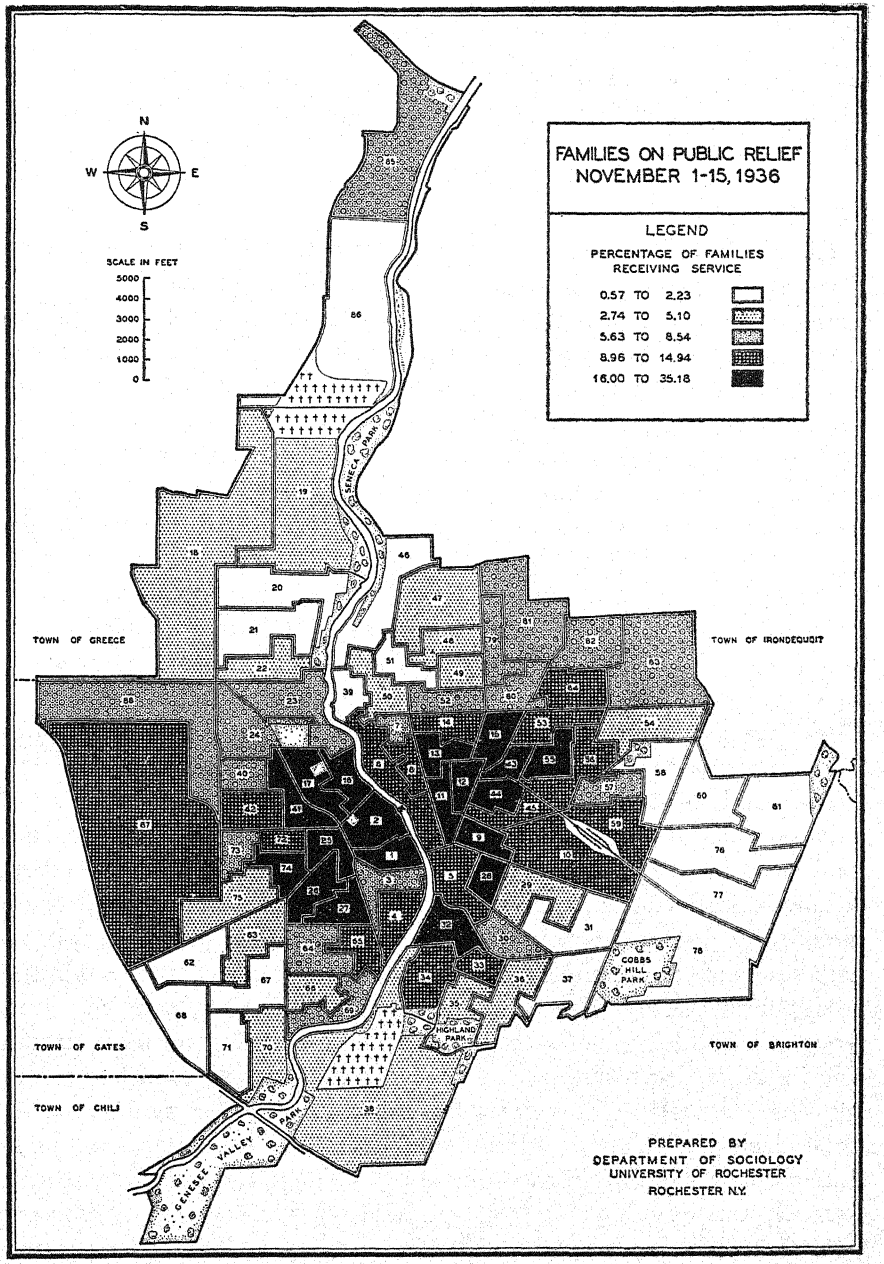


FIGURE 59. LOCATION OF FAMILIES ON RELIEF IN ROCHESTER

The highest per cent of families on relief, like the indices of social disorganization, is found near the center of the city. *From* R. V. BOWERS, "ECOLOGICAL PATTERNING OF ROCHESTER, NEW YORK," AMERICAN SOCIOLOGICAL REVIEW, *4:188, April, 1939.* *Data for map collected by* LUTHER FRY.

invasion, and succession call attention to the dynamic quality of community organization, particularly in a rapidly changing society such as ours today.

THE METROPOLITAN COMMUNITY

The city has been the scene of both centripetal and centrifugal forces. The preceding paragraphs have emphasized the centripetal, showing the tendency toward concentration and centralization of population in small areas. As has been suggested, however, the opposite centrifugal movement of decentralization has lately come into prominence. This point can be seen graphically in Figure 60. The streetcar added to the area of the city, but the coming of the automobile moved the population outward in greater numbers. Homes in the cities could be abandoned for roomier locations in the suburbs. This result was also due in part to the automobile truck which provided transportation of manufactured goods to the main lines of the railroads or to markets. The truck enabled factories to be built on cheaper land, in regions where wages were frequently lower also. The outward movement of factories has been pronounced in industries producing light consumer's goods, such as shoes and textiles. To the heavy industries the truck is not so well suited. The steel industry, for example, is dependent upon railroad and boat facilities.

Two kinds of transportation affect human ecology. One consists of units suitable for long distance transportation, such as the airplane, railroad, steamboat, and truck. The other comprises units operating in short distance transportation, such as the streetcar, the bus, the elevated train, the subway, and the helicopter. The combination of these two systems makes possible the greatest of all human aggregations, that found in the metropolitan area. The center is the metropolis or large city, and grouped around it are clusters of smaller cities, factory towns, bedroom cities, industrial suburbs, truck farms, villages, hamlets, even forest land and waste territory. There may be wild animals on the mountain side, small clusters of degenerate human beings in the wastelands, and sophisticated city people, all in the same area.[1] The union of local and long distance transportation thus makes possible a kind of community different from that which exists when local transportation facilities are poor and people have to walk to work. Modern transportation makes it possible to

[1] The Committee on Regional Plan for New York and its Environs reported that Greater New York City in 1925 included 25 counties, 290 incorporated communities, and 146 unincorporated towns. For a comprehensive study of the metropolitan area, see R. D. McKENZIE, THE METROPOLITAN COMMUNITY.

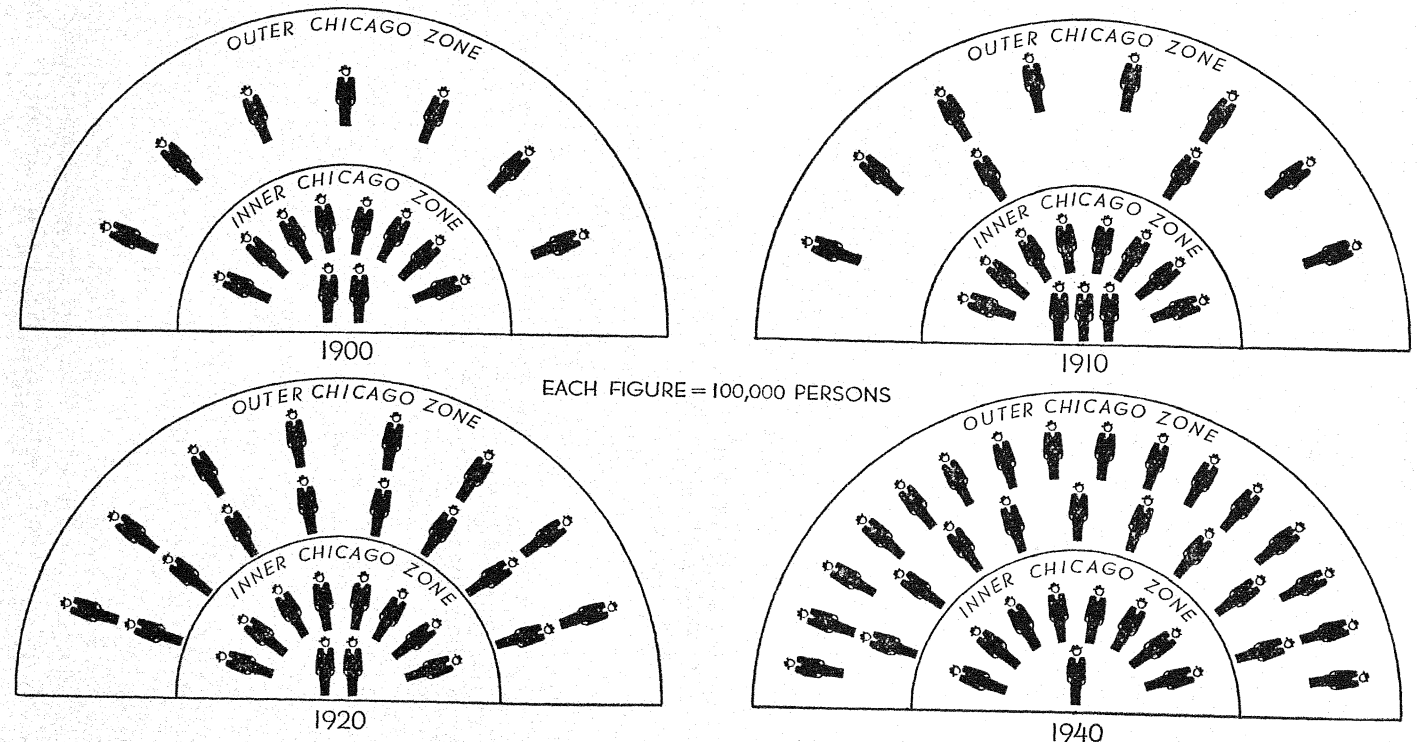


FIGURE 60. CHICAGO SPREADS OUTWARD

The population of the city is continually moving out toward the edge of the city, while the central area is losing population. Each figure represents 100,000 population. The Inner Zone is the central business area and area of early settlement. The Outer Zone is the more recently settled area near the periphery of the city. Based on data collected by LOUIS WIRTH *and staff, University of Chicago.*

avoid the type of urban settlement, called a megalopolis,[1] characterized by pronounced congestion of population in a restricted area around factories.

So recent is the metropolitan community that the United States Bureau of the Census has reckoned with it only in its last three counts of population. In the meaning used by the census, a metropolitan area is one of continuous density: a central city or cities and "all adjacent and contiguous civil divisions having a density of not less than 150 inhabitants per square mile." On this basis, 140 districts were indicated by the 1940 census. These 140 districts contained 47.8 per cent of the total population of the United States and 84.6 per cent of the total urban population. In other words, in 1940 roughly every other person in the United States was to be found in one of 140 metropolitan areas.

The unification of the groups composing the metropolitan area results from the fact that they are predominantly under the influence of the central city. There is much local inter-transportation for purposes of work, trade, amusement.[2] A clue to the cultural unity of the area is afforded by the circulation of city dailies in the surrounding country. In a study [3] of the Chicago area in 1929, for instance, it was found that the circulation of these newspapers was ninety per hundred in the news-reading center of Chicago and fifty-two per hundred at points forty miles out. At points fifty miles out, other small city newspapers assumed the circulation leadership. The metropolitan dailies of Chicago were therefore dominant within a radius of fifty miles from the city. It is recalled that advertising in newspapers which correlates with the urban market is a determining factor in the spread of newspaper circulation. Here it would seem is one clue to the size of the Chicago trade area and therefore to the size of the new, significant metropolitan community.

THE DECLINING FUNCTION OF THE LOCAL AREA

In the culture of early man, transportation facilities were poor, and mountains and great bodies of water were barriers to travel. As a result the population was distributed in small, relatively isolated localities. The smallness of the population meant considerable in-breeding, so that localities tended to produce distinct types. As a result of the isolation

[1] LEWIS MUMFORD, THE CULTURE OF CITIES (New York: Harcourt, Brace and Company, 1938).

[2] T. H. REED, "METROPOLITAN AREAS," ENCYCLOPEDIA OF THE SOCIAL SCIENCES, vol. x, p. 397.

[3] R. E. PARK, "URBANIZATION AS MEASURED BY NEWSPAPER CIRCULATION," AMERICAN JOURNAL OF SOCIOLOGY, 35:60–80, July, 1929.

also, dialects developed and there were local differences in such things as customs, housing and clothing. In earlier times the conditions of human ecology led to local types, as is true of flora and fauna in general.

The effect of invention, especially in transportation and communication, was to diminish this distinctive influence of locality. Highways, tunnels, bridges, steamboats, and airplanes conquer the barriers of mountains and large bodies of water. The result is the diffusion of common inventions into all areas. This diffusion of common customs and inventions throughout the various localities of an area means, of course, the disappearance of the local peculiarities. In Guatemala the Indians in each village wear a costume that is distinctive. There are many villages in the highlands of Guatemala and styles of clothing which differ radically from one village to another may be observed by the traveler along the highways. With the infiltration of inventions and extension of transportation and communication it is probable that these peculiarities of clothing will change, and the Indians will wear common wearing apparel made in factories engaged in mass production. In a similar way the customs and dialects peculiar to a locality will probably disappear under the impetus of the changes in transportation, communication and production. This process is especially favored by the modern techniques of mass production and of standardized and labeled goods, aided by marketing methods making use of print and radio advertising.

The larger units and the markedly increased mobility of modern population reduce in-breeding of human stocks to a minimum. To establish a new variation in bodily form becomes more difficult, for such variations are often recessives and appear only when two persons carrying the gene for such a variation meet and marry. The selection of a physical trait, such as tall stature or wavy hair, tends to be less easy in large mobile populations than in small, settled communities. Modern life is conducive to populations that are more heterogeneous in bodily characteristics and less segregated into types than were populations of the past. Travel and the communication inventions also break down differences in dialect, in customs and in manners.

Modern transportation and communication have expanded the small locality into the region. As the areal base of the community has expanded, the local area has become relatively less important. For instance, the areal base of many units of government and industry is now larger than the local community. There still are mayors, local police, small stores, but increasingly important are metropolitan, state and

national police, chain stores, and branch banks. The areas under the jurisdiction of the Federal Reserve Board are regions. Statewide and regional organizations are becoming more common. The widespread cultural similarities produced by modern inventions mean there is no longer so great a need for representation on the basis of the local area in governing units.

If by localism we mean the more or less complete identification of people with their immediate local community, then localism is on the decrease, despite the fact that the number of small places may remain constant or actually increase. There has been a strong tendency for small country neighborhoods in the United States to persist, despite improvements in transportation and communication. From 1900 to 1930 there was a falling off in the number, but the net loss was only about 16 per cent.[1] A study[2] of trade centers of the three Prairie Provinces, (Manitoba, Saskatchewan and Alberta) according to size found an actual increase in the number of small places from 1910 to 1930. In 1910 there were 904 centers (68.9 per cent of the total number) with less than 10 business units. The number increased to 1571 in 1930. These small places constituted a somewhat smaller proportion of all places, however: 68.9 per cent in 1910 and 64.6 per cent in 1930. In Manitoba the proportion of elementary centers actually increased in this period.

Even where the number of small places increases, identification of the inhabitants with their locality may be lessened by modern communication and transportation. The area in which people work, trade, take their recreation and have social relations is generally larger than the area in which they reside and get their mail. Activities occasioned by propinquity of residence now constitute a smaller proportion of the total activity of people than formerly. They may live in one place and work in another, read a daily paper published in still another place, have friends in numerous communities, participate in organizations, like fraternities and lodges, that are national in scope, and take an active interest in the wider issues of state and nation. "Facilities for travel and communication are freeing country and village dwellers from former restrictions of locality and residence so that they can seek their satisfactions in group arrangements of their own choice or design."[3]

[1] J. H. KOLB and E. DE S. BRUNNER, A STUDY OF RURAL SOCIETY, p. 67.

[2] C. C. ZIMMERMAN, THE CHANGING COMMUNITY (New York: Harper and Brothers, 1938), pp. 38–40.

[3] J. H. KOLB and E. DE S. BRUNNER, *op. cit.*, p. 142.

THE EXPANDING COMMUNITY AND LAGGING SOCIAL ORGANIZATION

While there has been an expansion of the areal base of the community, changes in social organization have not kept pace. In some places it has been possible to meet urgent metropolitan needs of the area by creating special districts for definite purposes: such as traffic regulation, park supervision, crime control, water supply, and sewage disposal. An example is the Massachusetts Metropolitan District Commission with authority over the sewers, water, and parks in the Boston area. Another is the metropolitan water district of Southern California, which enabled Los Angeles and sister cities to float a 200 million dollar bond issue to bring water in from Boulder Dam. But on the whole efforts to secure an adequate governmental unit for the metropolitan area have so far proved fruitless. There are about 1500 units of government in the greater Chicago area,[1] most of them having the power to levy taxes. While there is, consequently, enormous and needless cost for government, many communities in the area lack essential governmental services which a more comprehensive organization could provide. This lag produces costly social problems. For example, the problems of motor traffic are not handled efficiently by numerous independent small units, as is evidenced by the fact that there are often more automobile accidents and fatalities just beyond the limits of the city proper than in the city itself. Likewise, criminals find that the metropolitan area makes a good place of refuge because of the limited and conflicting jurisdictions of the various police forces. The metropolitan area represents a relatively recent development to which an adequate social adjustment has not yet been made.

THE REGION

A large area where there are a good many resemblances among the inhabitants is called a region. Some sort of natural boundary, as ocean, river, or mountain, often delimits such an area, and within a region travel is as a rule easier than it is from one region to another. The Mississippi Valley is a very large region, with lakes, mountains, arid plains, and oceans bounding it. Regions may be much smaller, as in the Willamette Valley in Oregon.

Regions are of interest to human ecologists today because of their in-

[1] CHARLES E. MERRIAM, S. D. PARRATT, and A. LEPAWSKY, GOVERNMENT IN THE METROPOLITAN AREA OF CHICAGO (Chicago: University of Chicago Press, 1933), p. xv.

creasing size. Of course, mountains do not move nor do oceans withdraw, but these barriers do not now hem in human beings the way they once did, when there were no modern devices of transportation. With railroad trains, boats, automobiles and airplanes, men cover much greater distances than formerly. These means of transportation span rivers, mountains, deserts and oceans. Imitation and intermarriage occur over a much wider area. Small valleys and other parts of states once marked off peoples with different traits, but now a region may consist of many states. The United States is now thought to have only a few major regions: Northeast, Southeast, Southwest, Middle States, Northwest, and Far West. The region has been changing so rapidly under the impact of technology that there is not always common agreement as to what are the principal regions of the United States. Some observers would say there are more and some less than six regions. Furthermore the boundaries of the foregoing regions are only partly those of natural environment. They are partly political and social. The natural boundary of a region tends to be replaced in modern times by the administrative boundary.

There are differences in characteristics between regions.[1] The Northeast, including New England and the Middle Atlantic states, has a high standard of living and income, but taxes are high too. There is a good deal of manufacturing and a small percentage of farms. There are many populous cities with large numbers of restaurants, and also a high per cent of foreign born. There are many old persons, and more women than men.

The Southeastern states have a high development of the family system with low divorce rates and a large number of children. Church membership is high in this region. It is characterized by many small farms and few large cities. Income and taxes are low, as are governmental costs. Educational standards are low. It is the American home of the Negro and the source of many migrants to other regions.

The Southwest has many large farms and a not very large percentage of factories, compared with other sections. The Middle states around the Great Lakes are a great manufacturing section, with a high standard of living and excellent educational systems. There are many cities, and the death rate is low. Libraries are well supported.

The Northwest is a region of large farms, little industry and relatively few cities. The people are largely of native stock. The Pacific Coast

[1] See HOWARD W. ODUM, SOUTHERN REGIONS, chapter I. Also WILLIAM F. OGBURN, SOCIAL CHARACTERISTICS OF CITIES (Chicago: City Manager Association, 1937), pp. 30 ff.

states have a very low birth rate and an exceedingly advanced educational system. The death rate is low, too, as is the marriage rate. The crime rate is high and the church membership low, compared with other regions. There is a large percentage of males and of young adults. Both income and taxes are high. There are other characteristics peculiar to the different regions for which we have no measurement, such as differences in manners, initiative, conservatism, and the like.

The common characteristics of the people in a region mean common problems and common interests, hence regions become bases for representation in national gatherings. But the political organization of the region shows a considerable lag. Originally the states of the United States were thought of as having common interests and hence were made the basis of political representation. In an age of improved transportation such as ours, the question may well be raised as to whether the region does not now occupy somewhat the same position the state once did as an area of common interests. But regional government (as regions are now defined) is not provided for by our constitution, and the constitution is slow to change.

Nevertheless, the interests of people have to be organized and administered. In lieu of official regional governmental organization, informal agencies are utilized. Thus there have been meetings of the governors of certain states to consider the common problems of the region and sometimes in Congress there seem to be common understandings among, for instance, the representatives and senators from New England and from the South. It is, however, in the economic sphere rather than in the governmental that we find a flowering of regional organization. The Federal Reserve Banks are organized by regions. Publishers have salesmen with regional territories such as the Far West or the Great Lakes states. Conferences are often organized by regions. The reason why there is more regional economic organization probably lies in the observed fact that economic organization changes its structure more readily than political organization.

Thanks to modern invention, the region tends to become an increasingly important administrative unit for many educational, economic, religious, and social activities, if not for governmental ones. But it is to be noted that invention is a dynamic and progressive factor, productive of ever new changes. Just as the railroad and the telephone helped to develop regions by breaking down the barriers between local areas, just so inventions such as the airplane and the radio help to organize the na-

tion itself as an increasingly significant functional community. A businessman can now travel from east to west by plane about as quickly as he can travel the length of a region by train. Such transcontinental business trips are becoming a commonplace. Improved railway service also facilitates the growth of the nation as a community, as does the mass production of standard brands of goods. Chain department stores now have many hundreds of branches distributed over the entire country. The same makes of automobile are driven from Maine to Florida and from New York to California. The big broadcasting companies have networks that serve the whole nation. Such inventions and influences make people who live in remote regions more alike. They share more common interests, customs, and activities. Hence, just as administrative units in regions have been added to those in smaller areas, just so social organization along more and more lines widens to embrace the nation as a whole, and in some particulars even cuts across nations and continents.

SUMMARY

Human ecology undertakes to set forth the factors that influence the location, size and physical organization of human communities. While among animals the ecological factors are entirely those of the natural environment, in the case of human beings the artificial environment of culture modifies greatly the ecological influence of nature; a fact of considerable importance.

Culture operates through invention to influence human location. When transportation facilities are rudimentary, man must live near the sources of his food supply. Since hunters in general lack adequate facilities for storing or transporting food, they must follow the game and hence live in small, nomadic groups. The domestication of animals makes possible a somewhat larger, more stable community but it is not until man achieves the level of agriculture that the large primitive settlement becomes a common thing. Shifts in the nature of the food supply thus mean changes in the location and organization of human settlements. Natural environment exercises no dictatorial control over the habitat of man, but operates through the medium of culture to determine the location of communities. As culture changes, old locations provided by nature are discarded and new ones are taken up. When transportation is highly developed, as it is at present, it is possible for a very large proportion of the population to live in urban areas, away from the food-producing lands.

Communities differ in pattern as well as in size and location. Since any local area is of limited size, and some districts are more favorable than others, there is competition for advantageous positions in the community. Such competition occurs among individuals and groups of different social and economic position, race, nationality, and the like. Competition in the modern city is particularly intense because of the limited area and the very large population. The result is the subdivision of the community into a large number of natural areas.

While the railroad and the steamboat helped to concentrate population in small areas, the coming of the automobile started the movement outward. This combination of long-distance and short-distance transportation makes possible the largest functional local community man has so far developed, the metropolitan area. So recent indeed is this development that no adequate social organization has been provided for the area as a

whole. This lag is being taken up, however, as the declining significance of the smaller local areas is more widely appreciated. Individuals still have interests in the localities in which they reside, but more and more their interests are identified with the larger regions. Consequently more attention is being given to the problems of the metropolitan area, as well as to those of the larger regions of the nation and the nation as a whole. In the future, the areal basis of social organization may cut even more across nations and continents.

QUESTIONS FOR DISCUSSION

1. Is natural environment more important for human ecology than it is for plant and animal ecology? Elaborate.
2. What type of ecological distribution of people is fostered by a hunting culture? How, in turn, does the spatial distribution of a hunting people affect the further growth of culture?
3. How does the arrangement of a primitive Shilluk community differ from that of a modern city like Washington, D.C.?
4. Why is the method of procuring food such an important factor in determining human ecology?
5. What were the effects of the domestication of animals and plants on the type of human community?
6. What factors determined the present location of your college community?
7. How has the invention of each of the following influenced the location and structure of modern cities: (*a*) the steam engine? (*b*) the railroad? (*c*) the automobile and truck? (*d*) electricity?
8. What factors are responsible for the differentiation of the city into "natural areas" ?
9. Are slums an inevitable accompaniment of urban growth?
10. What are "ecological processes"? Do they differ from the social processes described in Part IV?
11. The terms "centripetal" and "centrifugal" are borrowed from physics. Define them and explain their sociological meaning when applied to ecological processes.
12. Does your local community mean as much to you today as it did to your grandparents? Why?

13. Why is the region in the United States of special significance for national planning?
14. What cultural developments might turn the course of civilization southward?
15. What effects may the airplane have on human ecology in the United States?

TOPICS FOR REPORTS

1. The ecology of a community of primitive hunters or agriculturalists.
2. A comparative study of the ecology of medieval and modern cities.
3. A comparative ecological study of American and Oriental cities.
4. Using a printed map, mark off the natural areas of your own home community.
5. Invasion and succession on the Pacific coast.
6. Social problems of the metropolitan area.
7. Recent developments in regional planning in the United States.
8. Effect of the automobile on human settlement.

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XV. THE DISTRIBUTION OF POPULATION

THE PRECEDING chapter set forth the basic factors which determine the location and size of human communities. The discussion traced the changes in the nature of human communities which attended the growth of culture. It is appropriate to follow this discussion with a consideration of the actual distribution of population at the present time. The present chapter is therefore devoted to presenting, first, the numerical distribution of existing world population by continents and races; second, the principal changes in these respects which have occurred in rather recent times; and third and more important, the major biological and cultural factors responsible for the changes noted. Special reference is made throughout to the American scene, in which the reader naturally has the greatest interest.

WORLD POPULATION

THE PRESENT DISTRIBUTION OF WORLD POPULATION

The population of the world is now estimated to be about 2,000,000,000.[1] This estimate, however, may be too large or too small by a hundred million or more. The difficulty in knowing the exact population of the world lies in the fact that not all countries enumerate their population by taking censuses of all the people. Two billion are a lot of people, fifteen times as many as there are in the United States. Most citizens would like to have their city or their country have a larger population. Do we feel the same way about the planet? Do we feel a pride in knowing that there are 2,000,000,000 of us? Would we like to have a population of 3,000,000,000 or more?

Arable land available to support population. The total land on the earth is 33.3 billion acres, but not all of it can be used for growing food.

[1] THE STATISTICAL YEAR-BOOK OF THE LEAGUE OF NATIONS (1940–41, p. 18), gives the figure for 1939 as 2170 million.

The cultivated land is 2.4 billion acres, while the potentially arable, mostly in the tropics, is estimated to be 2.7 billion acres.[1] If 3.3 acres be figured as the area desirable to support one person, which is about what the situation is in the United States, the world could support 1.7 billion persons less than the present population, but this estimate is based on the assumption that the rest of the world has the same knowledge and technology as we have in the United States. Besides, all of the tillable land on the earth is probably not as fertile as that cultivated in the United States. If the ratio of arable acres to persons were the same as in Japan, the earth could support 10 billion consumers. But the land over the world is very unequal in fertility and the population is unequally distributed. Before discussing further how many fellow travelers on our whirling planet we might have, it is important to know where the present inhabitants of the globe now live.

Our original homeland, Europe, contains about one quarter of the population of the earth. The land is fertile and the Europeans have a scientific knowledge of agriculture. Europe's population of 527 million is known by actual count of census takers and is not an estimate. We also know accurately the population figures for most of North America, which totals 186 million, about one twelfth of the population of the globe, and a little more than one third of the population of Europe. Central America has 20 million and South America, 88 million inhabitants. The figures for Central America and for four or five countries of South America are rough estimates.

Africa is a large continent, but it does not have a very large population as compared with Europe, partly because of the backwardness of technological development in most of the area, and perhaps also because of the climate. The problem of determining the population of Africa rests upon estimating the numbers in South Central Africa. Since South Africa and North Africa, under European domination, have many white settlers, the population estimates are relatively reliable. In Central Africa the estimate of the population is made as follows. Something is known of the culture of the different tribes and something is also known of the geographical conditions. On the basis of the known densities of certain areas in different cultures and regions, it is possible to build up an estimate for the whole area. The total population of Africa

[1] J. B. CONDLIFFE: THE ECONOMIC PATTERN OF WORLD POPULATION, p. 5.

is estimated to be 158 million, nearly as large as the population of North America.[1]

Australia is a big island, a continent in itself, but it does not have a large population, due to the lack of water except around the rim of the island. The population, some 7 million, is about that of greater New York City. Indeed, the population of all Oceania is only 11 million.

The largest continent, Asia, contains over half the population of the world. The estimate is about 55 per cent. In all probability the error in this estimate is large, because no adequate censuses of large parts of the continent have been taken. This fact is especially true for China, estimates of whose population in 1930 vary from 342 million to 450 million. These estimates are based upon unpublished material in partial censuses, the areas of which, however, may overlap. The estimates of the post office in China have also been used. Where families have been employed as a basis of estimate, there is some doubt as to what the average size of family may be. Under the circumstances, agreement among estimators is hardly to be expected; yet most students of the population of China prefer the larger figure, 450 million. Likewise the populations of some ten other countries of Asia are subject to a wide margin of error. India, for which there is a more accurate estimate, has a population of about 382 million. India and China together comprise about three quarters of the population of Asia.

Future world population. With regard to the distribution of the population by geographical conditions, Figure 61 gives a better picture than can be afforded by words. The densely settled portions of the world are the regions of southern China and India, Europe, and eastern United States. These regions have favorable geographical location, navigable streams and bodies of water, generous rainfall, plowable land, and deposits of coal and iron. Thinly settled regions are Siberia, Canada, western United States, South America, Australia and Central Africa, as well as the polar regions.

The distribution of population by geographic regions is affected by climate, the quality of the earth's surface, the location of natural resources, and the existence of waterways. But geographical factors do not alone determine where people live. As was shown in the chapter on "Human Ecology," the geographic factors operate in conjunction with culture to affect the distribution of population. Thus rivers are not highways of transportation unless there are boats, and fertile river valleys

[1] THE STATISTICAL YEAR-BOOK OF THE LEAGUE OF NATIONS (1941–43), p. 13.

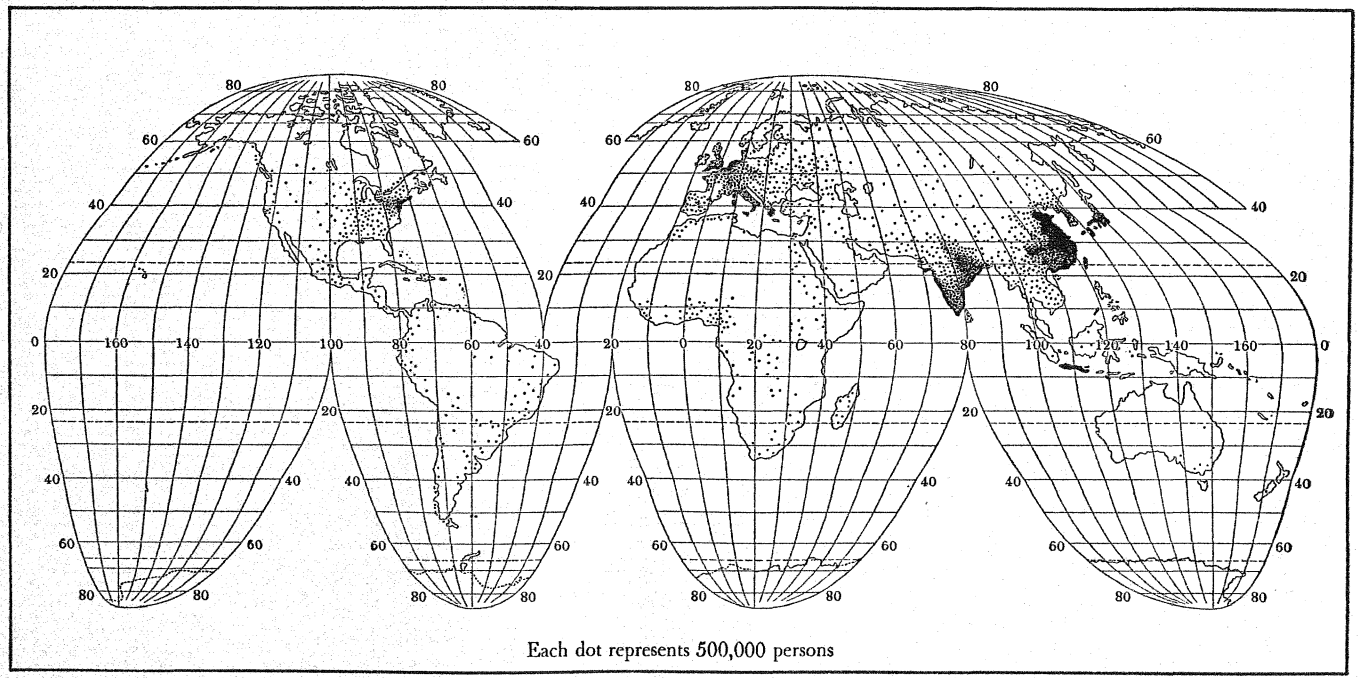


FIGURE 61. WHERE THE POPULATION OF THE WORLD LIVES

The very unequal distribution of the population of the world is due only in part to climate. Manufacturing as well as agriculture has helped to make the congested spots. A map made in 10,000 B.C. during the hunting culture would have shown a greatly different distribution. Adapted from O. E. BAKER, *Department of Agriculture.*

yield little food without cultivation. Europe has rich land and possesses the minerals with which to fabricate products to exchange for food. Such is also the case in Eastern North America. The other thickly settled areas are in good agricultural regions near waterways, and in hospitable climates. Food is not readily obtained from mountains, deserts, swamps, and rocky lands, nor does abundant food come from regions with less than 10 or 15 inches of rainfall, or from very cold areas. Such is the present state of affairs, but there are developments in the means of producing food, and in the utilization of natural resources, that may alter the distribution of the population in the future.[1] The future population of the earth could be as much as thirty billion, if one acre could be made to support two or three persons, as it does in some places in the Orient. These figures have only theoretical interest. The numbers depend on the quality of the land, the methods of agriculture and whether the diet consists of beans and rice or includes meat, milk and fresh fruit. The more feasible calculations are those for given areas where the factors of quality of land and technologies are known.

THE DISTRIBUTION OF RACES

The distribution of races may be indicated only in broad outlines. The white races, which include the dark-skinned peoples of India, occupy also Europe and North and South America, in part. They number perhaps slightly less than 1200 million. At one time their numbers were small; it is thought that the whites may have originated as a mutation from the yellow races. There are 500 million Europeans living in Europe, and 200 million living in other parts of the world, mainly in North America and Australia. The remainder of the whites are largely in India, Asia Minor, and northern Africa.

The Negroes are the smallest in number of all races, numbering probably about 135 million, of whom 13 million live in the United States. The principal home of the Negroid peoples, Africa, remains the dark continent, although there are some whites in the north and in the extreme south.[2] Before the coming of the whites, Australia was peopled by a black people, as is still the case in the Melanesian Islands. There is a scattering of Negroes in the Caribbean islands and in local areas of South America, due to migration in historical times.

[1] See Chapter XIX.

[2] It is to be noted also that all the Negroes of Africa are not equally dark-skinned; many Africans unmixed with whites have a brownish-colored skin.

The Mongoloid races occupy Asia, with the notable exceptions of India and Asia Minor. The peoples popularly described as having brown and red skins are rightly classed with the yellow-skinned peoples, for many physical measurements other than skin color are used in classifying races. The brown peoples occupy the islands south of Asia and many of the scattered islands of the Pacific, while the so-called red-skinned peoples, some 20 or 25 million in number, with many more mixed bloods, live in the Americas. The Eskimo, who live in the lower parts of the Arctic, are also Mongoloid, but in comparison their number is negligible. Altogether the Mongoloid races number perhaps 800 million persons. Such, then, is a bird's-eye view of the present distribution of the peoples of the world.

EARLIER DISTRIBUTIONS OF PEOPLES

The modern age is characterized by remarkable methods of transportation. Since these developed mainly in the cultures of the white peoples, it is natural that the whites should be more widely dispersed. Europe overflowed into the Americas, into Africa, into the islands of the Pacific, into northern Africa and into parts of Asia. The European stock outside of Europe is now about two-fifths as large as the population of Europe itself. The Europeans have also increased in Europe faster than have the non-Europeans in other parts of the world.[1] Europeans in Europe now comprise 25 per cent of the world's population; in 1650 their proportion was only 18 per cent. Today peoples of European stock, wherever they live, constitute about 35 per cent of the world's population. The change in the distribution of the European stock has been one of the outstanding social phenomena of modern times.

African population, though it did not overflow into the Americas, was nevertheless moved in that direction to some degree by the slave trade. The result has been a wider distribution of Negroes over the world. Their relative share of the world's population, however, has declined from about one fifth in 1650 to one fifteenth in the twentieth century. There has thus been a recession of blackness.

The American Indians in all the Americas have probably increased about fifty per cent in numbers since the coming of the white man. In America north of Mexico they have probably maintained their numbers, despite the fact that they have been dispossessed of the continent which they had occupied for perhaps fifteen thousand years.

[1] A. M. CARR-SAUNDERS, WORLD POPULATION, pp. 44–45.

There has been no great expansion or recession since 1650, the date at which we have the earliest general knowledge of population numbers, of the yellow peoples from the lands of Asia, although there have been shifts within the continent. However, the Mongoloid peoples are now a smaller proportion of the world's population than they were three hundred years ago, for the reason that the Europeans have increased more rapidly. There has been no rising tide of color in the last three hundred years.[1]

The distribution of the world's population by continents was also different before the beginning of the modern age. The Americas have increased their proportion of the world's population, while Asia and Africa have lost, as is shown in Table 14.

TABLE 14. THE WORLD'S POPULATION BY CONTINENTS, 1650 AND 1938, BY PERCENTAGE DISTRIBUTIONS *

Continent	1650	1938
Europe	18.3	24.9
North America	.2	6.6
Central and South America	2.2	6.1
Oceania	.4	.5
Africa	18.3	7.3
Asia	60.6	54.6

* A. M. CARR-SAUNDERS, WORLD POPULATION (Oxford: Clarendon Press), p. 42. Central and South America include Mexico, and J. B. CONDLIFFE, *op. cit.*, p. 13.

The population of the world in 1650 is estimated by Carr-Saunders to have been 545 millions, but this figure is somewhat conjectural. It is based, in fact, upon estimated densities according to type of culture. It is also attained by working backward from information concerning the present, by guessing at rates of increase, about which there is considerable information. The date 1650 is chosen because a good early estimate was made for that year. Moreover, by focusing attention on this particular date, the estimators have the benefit of critical review of one another's work.

The distribution of population in eras prior to 1650 has never been expressed numerically, and only the crudest inferences can be made concerning it. Agricultural methods and means of transportation were, of course, more rudimentary 600 years ago than they were 300 years ago, hence the agricultural lands probably held fewer peoples at the earlier date. The population densities among some primitive peoples who use only the digging stick to cultivate land are known and the sparse nature

[1] See THEODORE LOTHROP STODDARD, THE RISING TIDE OF COLOR (New York: Charles Scribner's Sons, 1920), for anticipations of future shifts in race.

of the population distribution under such conditions can be inferred. There is also some information as to densities among the hunting peoples. The more rudimentary the culture, the less efficient the means of producing food. From this fact it is reasonable to conclude that the farther back in time we go, the smaller the population, and that distribution follows the economic methods of food getting as well as geographical conditions.

FACTORS REDISTRIBUTING POPULATION

Peoples are scattered over the earth the way they are because of the operation of three factors: migration, births and deaths. The Americas, for instance, were filled by migration twice, once by Mongolians coming across the North Pacific, and later by Caucasians crossing from the West. When the Americas were filled, the distribution by numbers was affected by births and deaths and internal migration. Central America became populous while northern Canada remained sparsely settled. An excess of deaths over births has eliminated completely some peoples, for instance the Tasmanians, while the excess of births over deaths has caused others to grow remarkably, as was the case with the Navaho. Where medical progress and hospitals are introduced before birth control, there is likely to be great growth. Prior to recent medical progress, the white peoples brought contagious diseases to the natives and increased the death rate.

MIGRATION

Push, pull, and transportation. While migration and the balance of births and deaths redistribute population, there are other sets of factors that cause migration and influence the number of births and deaths. The factors that cause people to migrate may be summarized under the terms, push, pull, and means of travel. A land flowing in milk and honey beckoned the ancient Jews but there was also a push coming from the cruelty of the Egyptians. America was a promised land to the oppressed of Europe. It was a land of hope where immigrants might turn over a page in the book of life and start anew. The principal attractions here were probably economic opportunity and religious and civil liberty, while the push came from such situations as the potato famine in Ireland, the religious oppression of the Huguenots in France, and the revolution in Germany. It is thus seen that there are particular cultural or historical situations that cause a redistribution of peoples.

The pull exerted by the United States has been measured by a coeffi-

cient of correlation between waves of immigration and periods of prosperity in this country. The correlation is much higher than it is between the waves of emigration from Europe and hard times in Europe.[1] It would thus seem that often the attraction of the new home may be greater than the dissatisfaction with the old, as measured by mobility. This point is important because of the claim that population pressure makes for war. If the pull is greater than the push, it may be that the love of booty is a greater incentive to war than hardships at home. Certainly some densely populated countries, such as China and India, have been peaceful, whereas less densely populated Europe and America have frequently engaged in wars.

When migration is viewed through a long stretch of time, it is seen that the volume or rapidity of movement depends on the available technology. Other factors are also significant, such as the accessibility of new land and the absence of restrictions on mobility. While the latter no doubt played a part in the migration of 30,000,000 Europeans to the United States in less than a century, this great redistribution of population is not conceivable without large-sized steamboats. When men possessed smaller boats, it was possible to range far from home, but only in more limited numbers. The boat used by the Vikings took them in the twelfth century to America and Constantinople, and aided their widespread settlement in different European lands. The voyages of the primitive Polynesians were remarkable, their outpost at Easter Island being closer to South America than to southern Asia. But the numbers involved in these redistributions of population were relatively small. At the present time in civilized countries the high development of transportation facilities favors the mobility of peoples, but the laws restricting migration and the shortage of new territory are counter-forces.

The facts of recent migration. Accurate facts about migration are available only for the past century. The outstanding movement has been the dispersal from Europe, caused by factors associated with the industrial revolution. The total intercontinental emigration from Europe during this period is shown in Figure 62. Before the middle of the nineteenth century about 300,000 emigrants a year crossed to other continents. When industrialization got well under way, the emigration increased to between a million and a million and a half a year.

In the first three quarters of the nineteenth century over half the emigrants from Europe came from England, as is shown in Figure 63. About

[1] HARRY JEROME, MIGRATION AND THE BUSINESS CYCLE, p. 204.

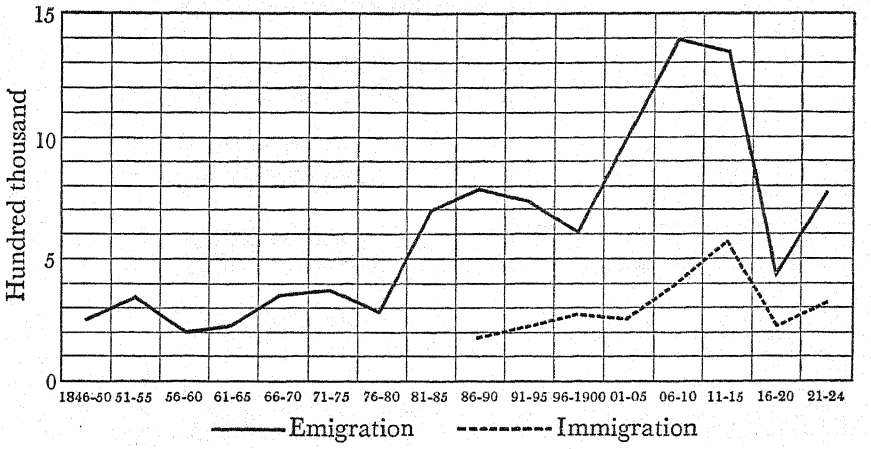


FIGURE 62. MIGRATION TO AND FROM EUROPEAN COUNTRIES

The upward trend is probably due to the growth of trade and commerce, and the fluctuations are probably related somewhat to the business cycle, although legislation is also a factor. From I. FERENCZI *and* W. F. WILLCOX, INTERNATIONAL MIGRATIONS, *vol. 1, p. 183 (New York: National Bureau of Economic Research, 1929).*

the middle half of the century Germany was sending forth about one quarter of the emigrants from Europe to other continents. By the beginning of the present century, however, Great Britain and Germany had become industrialized. They had a high standard of living and needed labor in their factories, and hence only one quarter of the emigrants came from these two countries. On the other hand, good methods of transportation were reaching Italy, Austria-Hungary, and Russia, agricultural countries not yet industrialized and with a low standard of living. In this period they supplied about three quarters of the emigrants to other lands. The shift in the course of emigration was from northwestern Europe to southern and southeastern Europe. Emigration practically ceased in the highly industrialized countries; the agricultural countries with a higher birth rate and a lower standard of living began to supply the emigrants.

The United States has received by far the largest proportion of European emigrants. Canada and the Argentine have taken the next larger portion, as is shown in Figure 64. Brazil and other American lands were also large recipients, as were Australia and New Zealand.

The homelands of immigrants to the United States from Europe are quite similar to the origins by countries of emigrants shown in Figure 63. However, Spain and Portugal contributed their population largely to

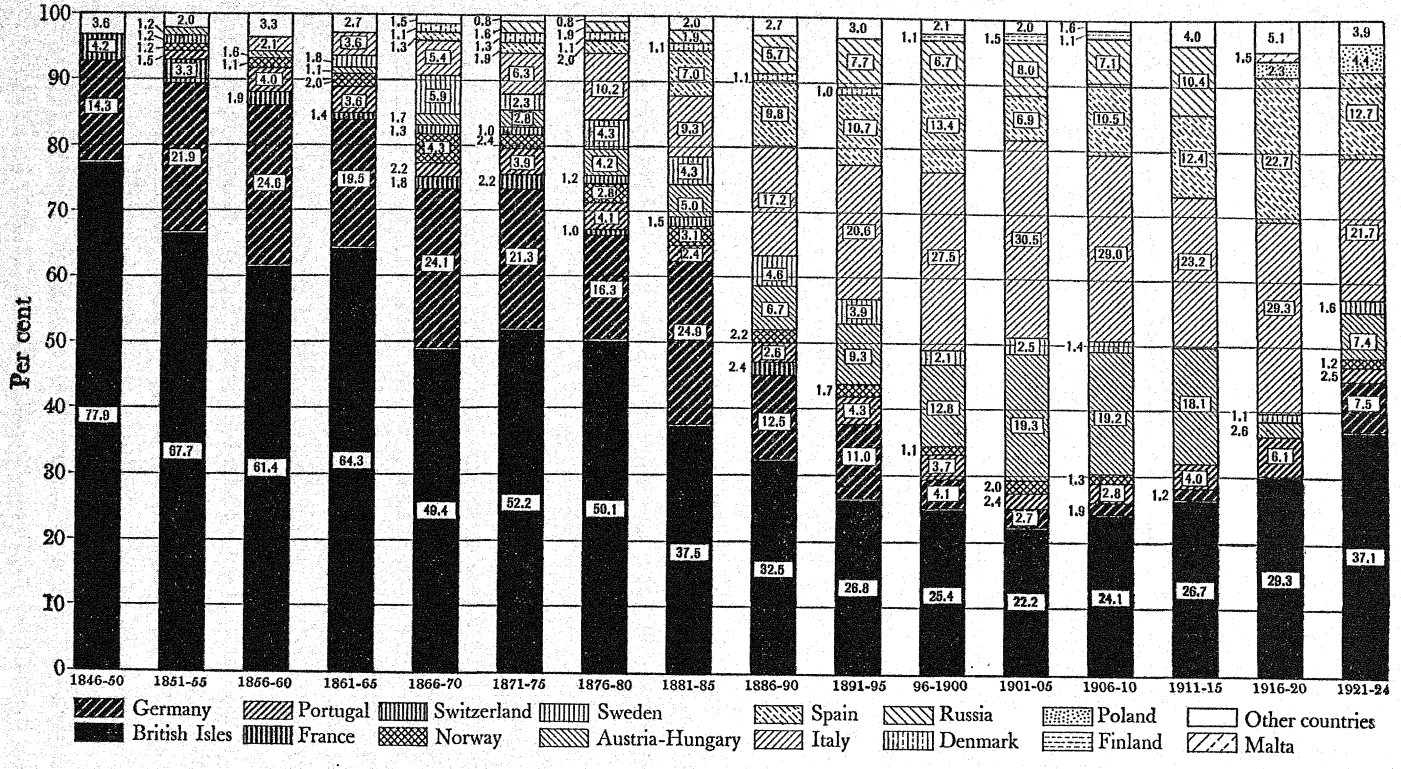


FIGURE 63. EMIGRATION FROM EUROPE BY COUNTRIES

The early emigration was, in the main, from northwestern Europe, but around the turn of the century it was mostly from the southern and eastern European countries. *From* FERENCZI *and* WILLCOX, INTERNATIONAL MIGRATIONS, *vol. I, p. 188 (New York: National Bureau of Economic Research, 1929).*

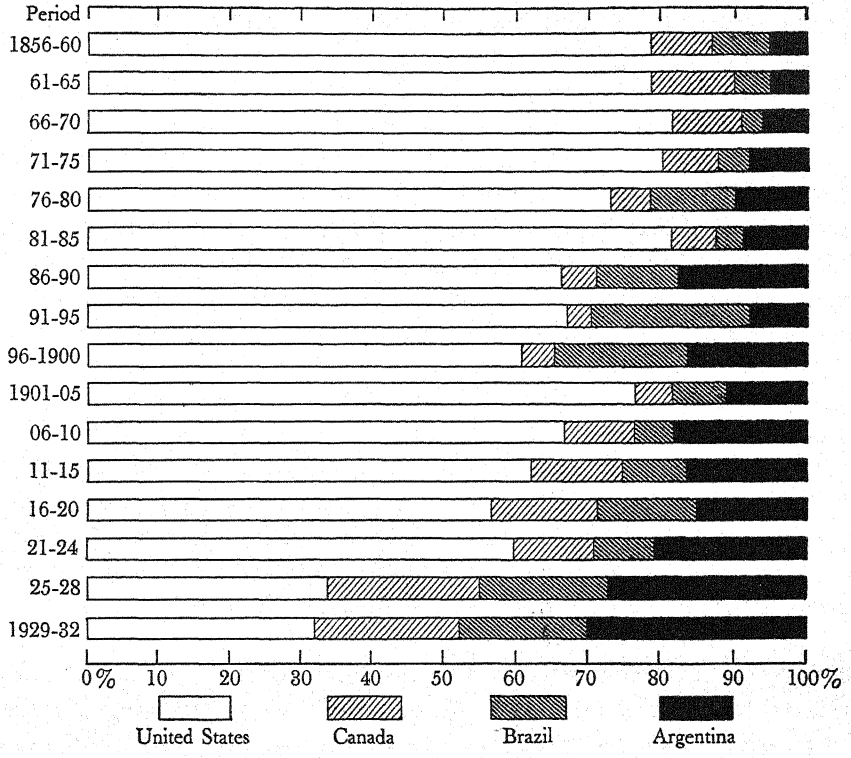


FIGURE 64. IMMIGRATION, INTERCONTINENTAL, OF ALIENS INTO THE UNITED STATES, CANADA, BRAZIL, AND ARGENTINA

The influence of legislation restricting immigration into the United States, which occurred after the World War, is apparent in the diagram. From CARR-SAUNDERS, WORLD POPULATION, *p. 54 (Oxford, England: Clarendon Press).*

South America, and rather large proportions of the British went to British possessions in America, Africa and Oceania. The twentieth-century immigrants to the United States have come from Mexico, Italy, and southeastern Europe.

Have these new immigrants changed radically the racial composition of the United States? The inhabitants of this country in recent years have been concerned about what the racial nature of the United States should be. The Japanese, a different race from the whites, have been prevented by law from migrating to California. There has been some concern on the part of the legislative representatives about the infusion of peoples of a different racial subtype from southern and southeastern

Europe, especially because the birth rate of the newcomers is high as compared to that of the native stock.

With their high birth rates these immigrant racial types have for a time increased more rapidly than the native stock in America. Despite this fact, the descendants of the immigrants from northwestern Europe far outnumber the newer immigrants. Over 80 per cent of the present population of the United States comes from stocks of northwestern Europe.[1] The United States, then, has much the same composition of population by racial types as has northwestern Europe, except for the ten per cent of Negroes, the few Indians and the occasional Oriental and Mexican.

Next to European emigration, the greatest population movement has been from China, chiefly into Manchuria, involving perhaps between five and ten million in the twentieth century. In all, there were about eight million Chinese living outside the bounds of China, not including Manchukuo, before the war with Japan.[2] As for Japanese emigration, it may be said that the volume has been relatively small. There are less than a million and a half Japanese living outside Japan proper. These for the most part are found in Formosa, Manchukuo, and Hawaii. From Africa the non-voluntary movement of peoples amounted to sizable numbers during the slave trade. This movement is supposed to have actually reduced the population of Africa, but no reliable figures are available.

In earlier times, when populations were small and land less densely settled, migration generally took place by the infiltration of small groups, often with sword or club in the hands of the vanguard. Thus there have been waves of migration from Asia into Europe, and from around the Baltic southward. Greece and Sicily have been overrun several times by invaders, but the racial characteristics of the present population show hardly a trace of the Baltic, Alpine, or Moorish peoples who settled there. Such was not the case in the Americas where the original inhabitants, the Indians, were in large part displaced. In earlier times there may have been much displacement of peoples. The remains in pre-historic graves show that a people of the Mediterannean racial type, resembling the Greeks, Italians and Spaniards, at one time extended far north in Europe, even as far as Scotland.

MIGRATION WITHIN THE UNITED STATES

Where migration occurs. The major trend of migration in the United States is symbolized by Horace Greeley's famous advice, "Go West,

[1] A. M. CARR-SAUNDERS, WORLD POPULATION, p. 165. [2] *Ibid.*, pp. 57–58.

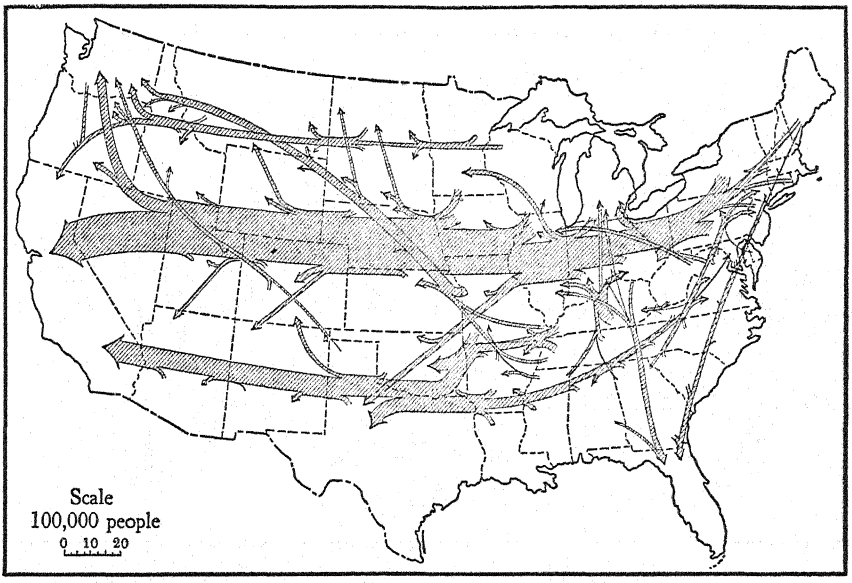


FIGURE 65. NET MIGRATION SINCE BIRTH OF THE NATIVE WHITE POPULATION, 1930

Throughout American history the course of population movement has, in the main, been westward. It still continues so. From PROBLEMS OF A CHANGING POPULATION, *p. 84 (Washington: National Resources Committee, Government Printing Office, 1938).*

young man." This cry was heard long before Greeley. It was the call from the time of the earliest settlement along the Atlantic seaboard. Though the settlers reached the Pacific coast in the middle of the nineteenth century, and though this region was well settled by the beginning of the twentieth century, it is still the most rapidly growing region. The population of the Pacific coast states increased by about half from 1920 to 1930. From 1930 to 1940 it increased by about one fifth, a higher rate of increase than any other section of the country. The settlement of the West came through migration, much of it in the early days from populous New England. The Southerners moved into Texas. This westward movement of population is shown in the map in Figure 65 which gives the net migration, since birth, of the native population by 1930.

Before World War II the outstanding internal migration movement was the departure of persons from the farms and the growth of the metropolitan areas. The migration from the farms between 1930 and 1940 was mainly from the South and Middle West, as is shown in

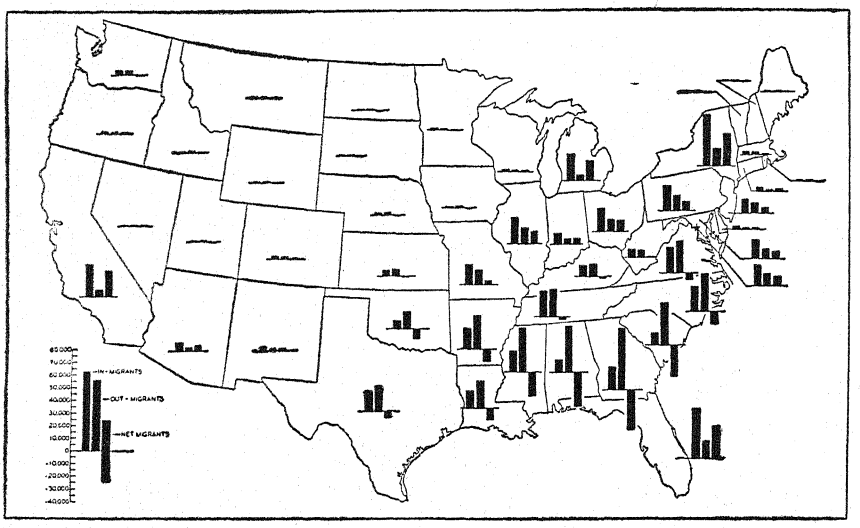


FIGURE 66. MIGRATION OF THE NON-WHITE POPULATION, 1930–1940

The closing of the gates at Ellis Island provided a tremendous impetus for the Negroes to move northward during the nineteen-twenties. This dispersal continued somewhat during the nineteen-thirties, even though there was considerable unemployment in the factories of the North. Data from United States Bureau of Census, INTERNATIONAL MIGRATION, *1935* TO *1940.*

Figure 67. During the depression years of the early nineteen-thirties the migration from the farms slowed up, and in 1932 the cities are said to have lost population (net) for the first time. Hard times slowed departure from the farms and for a brief time the city people sought shelter on the farms. However, the net movement for the decade 1930 to 1940 was toward the cities at the rate of about one hundred thousand per year.

The cities to which migrants go are naturally the cities which have the largest increases from decade to decade. From 1930 to 1940 there were a number of metropolitan districts in the South and in California that had rather high rates of growth. Table 15 shows the metropolitan districts that experienced a growth of over twenty-five per cent during the decade from 1930–1940.

Who migrates. There is a good deal of interest as to what types of people migrate, the restless and unstable or the more intelligent and aggressive? Does the better biological stock migrate or stay at home? Or are migrants just an average sample? It is not possible to give general answers to such questions, desirable as it may be to know whether

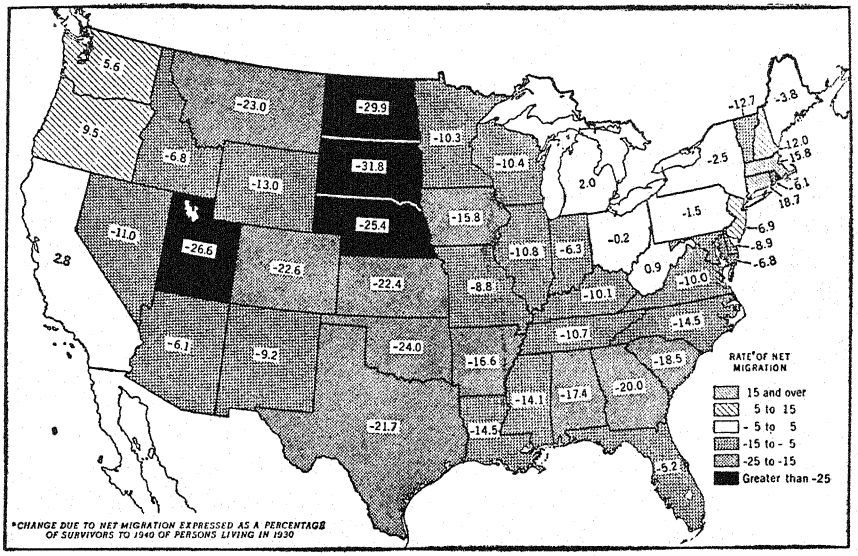


FIGURE 67. NET MIGRATION FROM THE RURAL-FARM POPULATION, 1930–1940

A high birth rate and the introduction of machinery mean an excess of farm labor, which during the nineteen-twenties streamed to the factories in the cities. This movement was reduced in the nineteen-thirties, because of the unemployment and depression. From United States Department of Agriculture, Bureau of Agricultural Economics.

the countryside is being depleted of its best stock or whether we are getting in our immigrants bad or good biological material.

TABLE 15. METROPOLITAN DISTRICTS — PER CENT INCREASE, 1930–1940 *

Corpus Christi, Texas	106.5
Miami, Florida	89.5
Houston, Texas	50.5
Washington, D.C.	46.2
San Diego, California	41.6
Jacksonville, Florida	31.5
Shreveport, Louisiana	30.4
Jackson, Mississippi	28.9
Stockton, California	28.2
Charleston, West Virginia	26.0
Los Angeles, California	25.3
Sacramento, California	25.2
San Jose, California	25.1

* From U.S. CENSUS, POPULATION, Vol. I, Number of Inhabitants, Table 18, pp. 61–65.

Nearly all studies of migrants show that it is the young adults who most commonly migrate.[1] In general at the younger ages the migrants from farms to towns include more young women than young men. There are exceptions. Among immigrants to the United States from other lands, males predominate. As to family status, most researches find a larger number of migrants without families than with them. These facts, of course, have little to do with constitutional abilities. Whether the migrants have better health than those who stay at home (a few studies indicate that the rural to urban migration represents probably "better lives") is a difficult point to prove. It is not known whether migration selects the mentally healthy or unhealthy.

Whether the intelligence of immigrants is greater or less than the average of the region from which they come is a matter which has been investigated a good deal. Klineberg's[2] researches on Negroes moving north from certain Southern towns and cities indicate that those who migrate have no more intelligence than those who do not migrate. Intelligence as here used is defined not as an inherited trait, but as what the intelligence tests used today measure. Gist and Clark[3] find that in regard to ability, as measured by intelligence tests, superior persons are tending to migrate more frequently to the cities than are those in the inferior or average classes. Other studies indicate similar conclusions.

NATURAL INCREASE OR DECREASE

When the number of births exceeds the number of deaths, the change is called natural increase, in contrast to increase by migration. Favorable food supply, early marriage and relative absence of disease and war lead to a natural increase, while the opposite of these conditions, plus the voluntary limitation of offspring, leads to a natural decrease. In the United States in 1938 there were 2.3 million births and 1.4 million deaths.[4] Thus 900,000[5] were added to the population by natural in-

[1] For a digest of the literature and conclusions on this subject, see, DOROTHY THOMAS, RESEARCH MEMORANDUM IN MIGRATION DIFFERENTIALS (New York: Social Science Research Council, 1938).

[2] OTTO KLINEBERG, NEGRO INTELLIGENCE AND SELECTIVE MIGRATION (New York: Columbia University Press, 1935).

[3] N. P. GIST and C. D. CLARK, "INTELLIGENCE AS A SELECTIVE FACTOR IN RURAL URBAN MIGRATION," AMERICAN JOURNAL OF SOCIOLOGY, 44:36–58, July, 1938.

[4] POPULATION INDEX, 5(4):289, October, 1939.

[5] 1,600,000 were added in 1943, an exceptionally large number due to the large number of war and boom-time marriages.

crease. Since the population was 129,000,000 the increase is seven tenths of a per cent in one year. Most of the countries of the world experienced a natural increase in the twentieth century. The variation in the rates is great, however. In France the population has grown only a small fraction of one per cent, and in 1941 there was a slight decrease —.0044. On the other hand Bulgaria has a natural increase of .01 a year. The ranking of various countries of the world according to their rate of natural increase in the late 1930's is shown in Table 16. The countries of northwestern Europe are increasing much less rapidly than are the countries of western and southern Europe.

TABLE 16. RATE OF NATURAL INCREASE PER YEAR, 1938 *

Country	Rate
France	— .0008
England and Wales	.0033
Sweden	.0034
Germany	.0080
Hungary	.0052
Bulgaria	.0090
Italy	.0097
Rumania	.0104
Poland	.0106
Portugal	.0114
Yugoslavia†	.0119
Australia	.0079
United States	.0070
New Zealand	.0083
Canada†	.0096
Guatemala†	.0186
Argentine	.0121
India†	.0121
Japan†	.0136
Egypt†	.0163

* STATISTICAL YEAR-BOOK OF THE LEAGUE OF NATIONS, 1938/39, (Geneva, 1939), pp. 42–44.
† Figures for 1937. Figures later than 1938 for combatant countries in the World War are unrepresentative and hence are not quoted.

These rates of natural increase for various countries of the world are also indicative of their rates of growth, for there is very little migration

to most nations in modern times because of restrictions of one kind or another, though in the post war years forced mass movements of population may occur, as, for instance, from East Prussia into Germany. With regard to the European countries listed in Table 16, it may be seen that the redistribution of population due to births and deaths is toward the eastern part of Europe. Eastern Europe is becoming relatively more populous than western Europe, which was not the case during the past hundred and fifty years when the industrial revolution was occurring in western Europe. Nor may it be the case during the next hundred and fifty years, for the factors producing population increase and decrease are very variable. The new countries such as the United States, Canada, Australia and New Zealand are intermediate in their rates of natural increase, coming between eastern and western Europe. The part of the Orient about which we know, on the other hand, is increasing at a more rapid rate, some five or six times as rapidly as northwestern Europe. Perhaps this fact may be interpreted as foreshadowing the might of the Orient as well as its militarization. It should be noted, however, that the differential rates of growth are subject to change. The rates of increase of different countries are further discussed in the following chapter, "Growth of Population."

THE DISTRIBUTION OF POPULATION AND NATIONALISM

Populations today are grouped in nations and states. The strength of a state is not unrelated to the size of its population. The great powers have large populations: Russia, 172 million; the United States, 132; the British Isles, 48; Italy, 44; and France, 42. The lesser powers have smaller populations: Belgium, 8 million; Switzerland, 4; Holland, 9; Sweden, 6; Spain, 26; Greece, 7; Finland, 4; Denmark, 4.[1]

There are, to be sure, a few exceptions. Neither China nor India, with populations of 450 and 389 millions respectively, is as yet classed as a great power, though Japan with 73 million people clearly was. The exceptions prove that mere numbers do not alone determine the strength of nations. In addition there must be natural resources, and both technology and economic organization to turn these resources into usable products, particularly into engines capable of producing death in wartime. Still, man power is an important factor in the greatness of states. China and India may some day be great powers.

The United States, with its four million population, was not a very

[1] STATISTICAL YEAR-BOOK OF THE LEAGUE OF NATIONS, 1941/42, pp. 16–17.

strong nation when it began its career as a single state. But today it has grown to 132 million and has other sources of strength in resources, minerals and technology. Its neighbors, Canada, with only 12 million, and Mexico, with 19 million, are not of sufficient size to be dangerous competitors. As population growth has helped to make the United States a great state, so also has this factor operated in the case of England. In the seventeenth century the population of England and Wales was only 4 or 5 million, while France had 20 million. France had the more influential civilization. Today they are about equal in numbers. In the earlier period, France was twice as large as Italy; now they are of about equal size. At that time Italy was not a state but a collection of principalities and dukedoms. The region now known as Germany was slightly larger than France, but it was also not united. The union and growth of certain peoples has been basic to the movement known as nationalism, a striking development of the nineteenth and twentieth centuries.

Nationalism impedes the freedom of movement of peoples from one state to another. Passports and visas are required for travel. Many states have laws prohibiting or limiting migration. In its early years the United States welcomed all comers, whether they were prisoners or revolutionists. Later, tests regarding beliefs, health, literacy, and morals were applied. After the World War the numbers coming to the United States were restricted so that the excess of admissions over departures in the first part of the nineteen-twenties was only about a half-million a year. In the late nineteen-twenties the net immigration was further restricted to about a quarter of a million a year. In the early nineteen-thirties the departures exceeded the admissions, partly as a result of the business depression and partly owing to executive orders. The law of 1924 restricts the intercontinental migration to approximately 150,000 a year.

Some states wish to keep their citizens at home possibly as a labor force, possibly as potential soldiers, since it is the males at ages of military usefulness who freely migrate. Many countries forbid the expenditure of money for migration because of the shortage of foreign exchange needed for large imports. Finally, some countries that might receive immigrants do not want them for economic, social, racial, or patriotic reasons.

In view of the reproduction rates in northwestern Europe and in the countries settled by Europeans, it does not seem probable that these countries will in the future be the source of much emigration. On the other hand, the countries of southern and southeastern Europe, with higher

birth rates, are more likely to enter a period of expansion, especially as the industrial revolution develops among them. Japan has already had such a period of expansion. China and India may also experience an era of expansion later.

These peoples who will probably be expanding may want to migrate to lands held by the English, the Dutch and the French. In the past such immigration has been accompanied by fire and the sword. Perhaps it may be so in the future, for the international control of migration between countries is not easily achieved.[1] A state is sovereign only within its own boundaries. Rivalries are keen and race prejudice is strong. Australia is not likely to open its doors to immigration from Japan, despite the fact that Australia has much space and Japan little. International strife would seem to be indicated by such a situation. There is a possibility, of course, that in the future markedly decreasing birth rates may become characteristic of countries outside western Europe and North America. If this is so, a ruthless redistribution of population may be forestalled, for the pressure for expansion would be relieved.

Population Distribution Within the United States

SHIFTS IN POPULATION DISTRIBUTION

The distribution of population within a state may be considered from two standpoints: in terms of type of local community and in terms of larger regions.

The diminishing rural population. Only one quarter of the population now lives on farms. At the time of the formation of the republic, the proportion that lived on farms was much larger, though the exact ratio is not known. The diminishing proportion of the rural population is shown in Figure 68.

The reason for this diminishing rural proportion of the population is the increasing efficiency of agricultural production. A farmer produces more today because he uses better tools and machines, and also because he has a greater scientific knowledge of fertilizers and of plant and animal breeding. "The average American farmer," states O. E. Baker,[2] "after allowing for the services of the hired laborer, in addition to feeding three other persons in his family, now provides food and fibers for fifteen

[1] Warren S. Thompson, Danger Spots in World Population (New York: Alfred A. Knopf, 1929).

[2] Quoted from a letter to the authors, May 25, 1939.

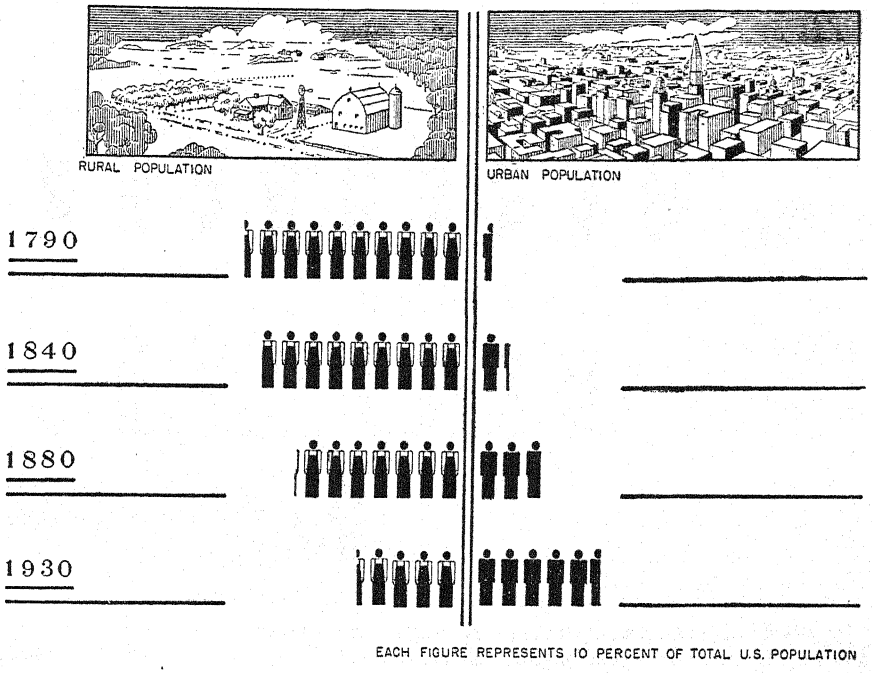


FIGURE 68. THE DIMINISHING PROPORTION OF RURAL POPULATION, 1790–1930

The diminishing size of the rural population and the growth of the numbers of urban residents means a great shift in customs and philosophy of life. The proportion of rural population in 1940 was only slightly smaller than in 1930. Will the proportion of farmers continue to diminish during the next century, and if so, with what consequences? From OUR CITIES, *p. 1, Figure 1 (Washington: National Resources Committee, Government Printing Office, 1937).*

people living in American cities or elsewhere than on farms and one more person living in foreign countries, a total of twenty in all." "In olden days," Henry Wallace, former Secretary of Agriculture, said, "it required nine farm families to feed themselves and have enough left over to feed one city family." This change is shown graphically in Figure 69. This increasing efficiency of farming may be counteracted somewhat by the withdrawal of chemical elements from the soil by harvested plants, yet the increased use of machinery and scientific discovery will probably mean that in the future one farmer may be able to feed many more city dwellers than he feeds today. Hence an even smaller proportion of farmers is to be expected. This trend may be viewed with regret by those who admire farming as a way of life rather than as a way of making money, and by those who see the rural community as a good training place for character and the virtues.

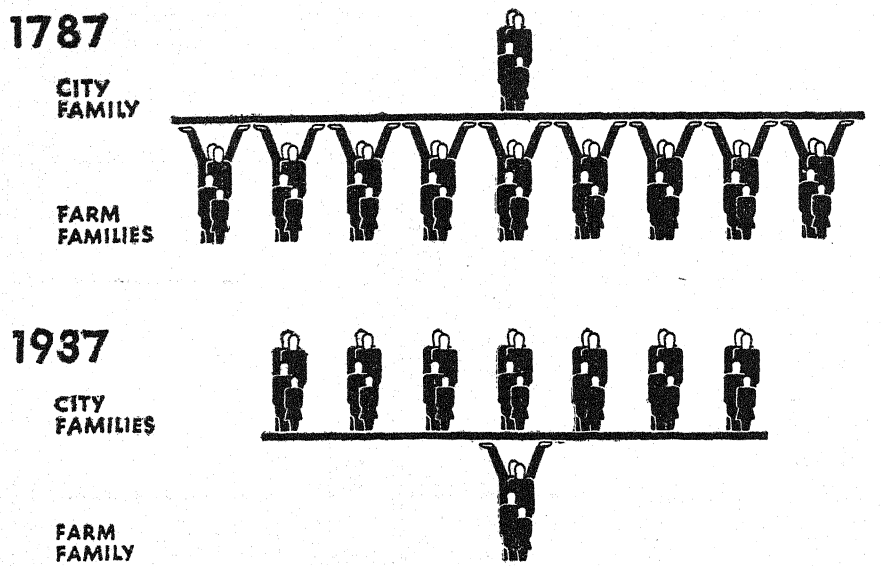


FIGURE 69. NUMBER OF FARM FAMILIES NEEDED TO FEED CITY FAMILIES

If the birth rate in the cities continues to fall and the migration from the farms to the cities lets up, will not the farmers raise more products than the city dwellers can consume? One hundred and fifty years ago 9 farm families were required to feed one city family. Now one farm family feeds 7 city families and one farmer feeds approximately 20 people. Fifty years hence, how many city families will one farm family be able to feed? From CONSUMER'S GUIDE, *IV:13, March, 1938.*

These remarks clearly show the redistribution of the population away from the rural communities, but they do not indicate how little city life there was in 1790. At that time only 3 per cent of the population lived in places of over 8000 inhabitants, and it was not until 1820 that there was a city of 100,000 population in the United States. We all know that cities existed in those days: New York, Philadelphia, Boston; but it is often not realized how small they were and what a meager per cent of the population lived in cities. Large cities only became prevalent after the Civil War. Now almost a third of the population (30 per cent) lives in cities of over 100,000 population. Of the 3464 urban places, there are five with over a million inhabitants. It used to be that students in colleges had special need for courses about the strange ways of city life, the rural background being common knowledge. The reverse is often more nearly true today. Since three quarters of the population live way from the farms, it is often desirable for sociology teachers to acquaint their students with the strange ways of rural life.

Village population. The proportion of the population living in villages, however, has not changed much in the last half century, though the general opinion probably is that the villages are decreasing. The villages seem to have been passed by without much attention. Our domestic problems appear to be largely those of farm or city. Yet 25 million, or almost a fifth of the population live in hamlets, villages and small towns with less than 2500 inhabitants. Perhaps one reason why little is heard of these villages is that their inhabitants may have made a fairly good adjustment to life, more so than the farmer or the city dweller. The villages have existed a long time, long enough for the working out of their problems in a more or less satisfactory manner. Yet it is not only the farm and the city that are changing. The village is also being affected by the communication inventions, the radio, telephone, motion picture; and also by the transportation inventions, the bus and automobile, which bring problems of adjustment. There are also industrial villages nowadays built around a factory, quite different from the earlier agricultural type of village, which centers around the stores of merchants who trade with the surrounding farmers. The processes of change are bringing village probblems too.

Distribution of population by size of city. With one quarter of the population on farms, and one fifth in villages and small towns, there is over 50 per cent in large towns and cities. But not all of this half live in large cities, for there are cities of different sizes. How the urban population is distributed into cities of different sizes is shown in Figure 70. One fifth of the urban population lives in places of over a million inhabitants, and over one half of the urban people live in cities of over 100,000.

The distribution of the population of the United States by size of community has been presented for early times and for the present, but the story is not quite complete. In recent years the population has been drawing closer to the big cities, and the big cities have been spilling over into adjacent territory. These people outside the city limits of the metropolis live largely in unincorporated places, towns or cities strung out along railroads and highways for some 25 to 75 miles. The distribution of the population takes a form like a starfish, rather than a large circle. It is usually called, as we have seen, a metropolitan area. The inhabitants of the metropolitan area outside the political boundary lines of the metropolis are urban in many of their attitudes, even though some of them are farmers or villagers. They go often to the city to trade, and many work within the metropolis. The large city is also frequented for recreation

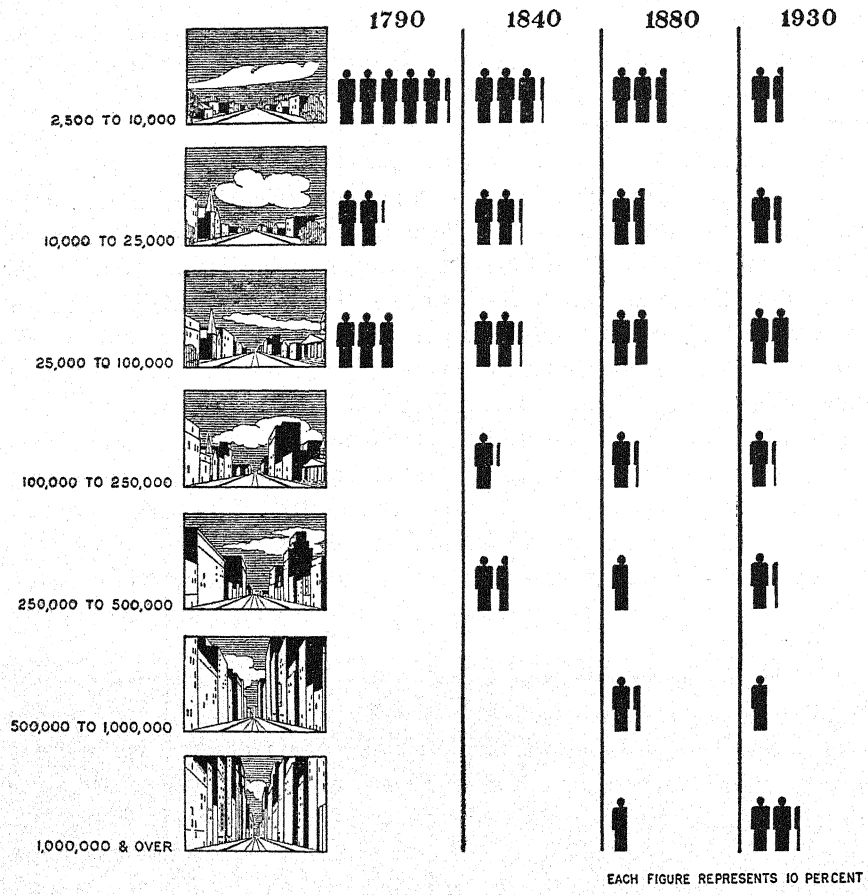


FIGURE 70. PROPORTION OF URBAN POPULATION IN CITIES OF DIFFERENT SIZES

The proportion of the population in the different sizes of cities in 1940 was virtually the same as in 1930. There is some speculation as to whether the trend shown in the above figure will not be reversed in the near future. From OUR CITIES, *p. 8 (Washington: National Resources Committee, Government Printing Office, 1937).*

and education. Almost half of the population of the United States now lives within these metropolitan areas. The comparison in the size of the population living in the metropolitan areas and that living outside is shown by the black pattern in Figure 71. The comparison of the land area is shown by the shaded lines. The metropolitan areas are densely populated. It may also be remarked, parenthetically, that the regions outside are less vulnerable to attack by airplanes in time of war.

The location of these metropolitan areas in the United States is shown in Figure 72. The size of the circles represents the size of the population of the 96 metropolitan districts; the numbers in the circles indicate the number of separate incorporated places within the metropolitan area. Each circle is to a certain extent a single economic area, whereas the number within the circle represents the number of political units within the economic area. Perhaps if there were fewer political units to an economic unit there would be more satisfactory control over criminals, who can so readily move from the jurisdiction of one group of police to another, or to where there are no police. The map shows, also, the location of the big cities and marks out the areas of industrial concentration. In these circles the factories are, in the main, located, as well as the stores of the merchants. It is probable that the automobile, the electric-power line and steep-flight aircraft will spread out these areas further.

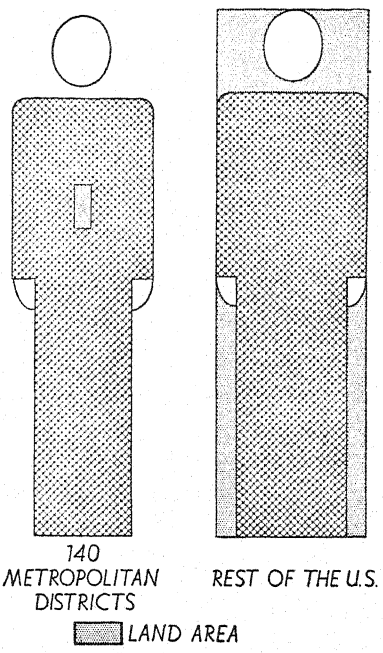


FIGURE 71. DENSITY OF THE METROPOLITAN AREAS

A comparison between the land area of the population of the 140 metropolitan districts and the rest of the United States, 1940. The metropolitan area is much less congested than the city, but it is much more densely populated than the rest of the United States. The number of people living in the metropolitan districts is nearly as great as that living in the rest of the United States. Adopted from OUR CITIES, *p. 2 (Washington: National Resources Committee, Government Printing Office).*

The outstanding features of the distribution of population by size of community are, then, the small proportion of farmers, the large number in urban places and the concentration of population in metropolitan areas. The data presented are for the United States, but the forces that have distributed the population thus in the United States have determined similar patterns in the other modern countries of the world.

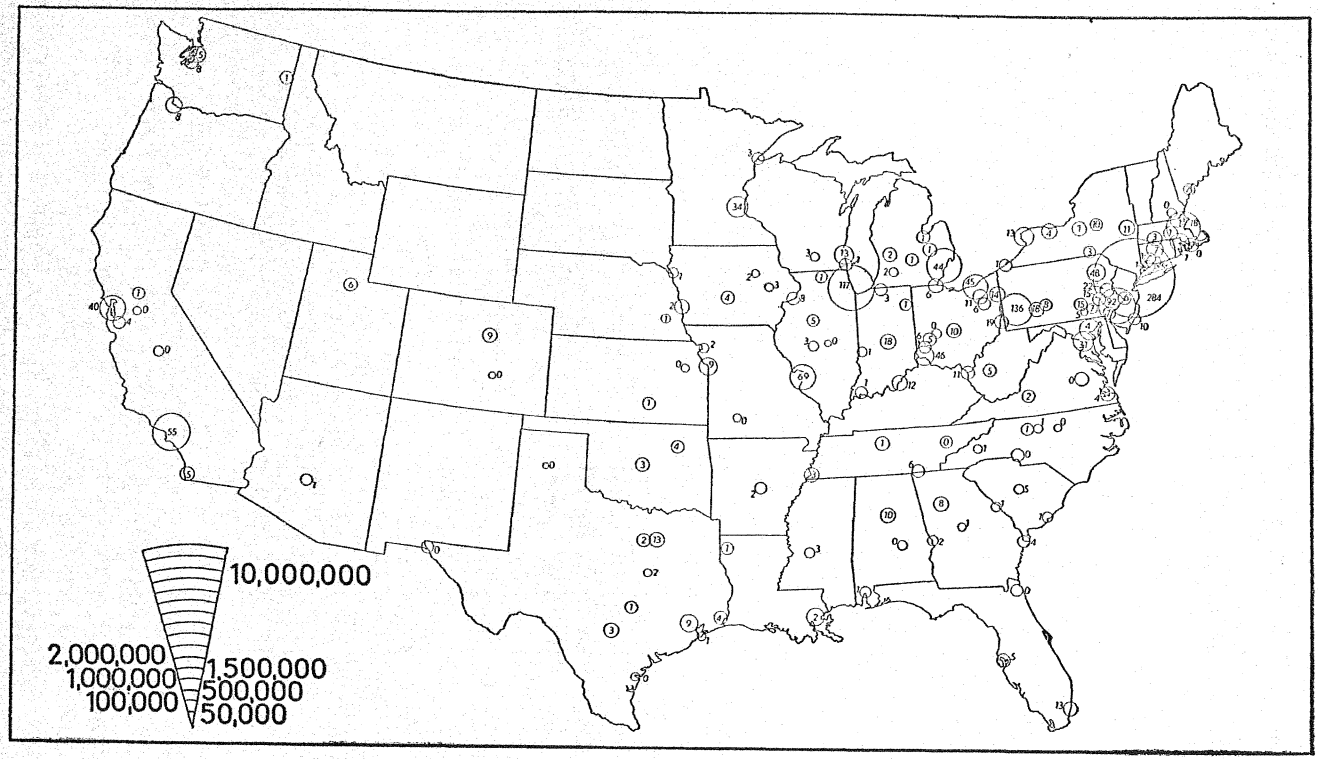


FIGURE 72. NUMBER OF INCORPORATED PLACES WITHIN THE METROPOLITAN DISTRICTS, 1940

The metropolitan district appears to be an economic unit, but not a political one. It seems probable that changes in government are lagging behind changes in economic organization, suggesting that in the future there will be fewer governments within the metropolitan region.

Regions. The distribution of population by regions has had dramatic consequences in American history. Westward has been the movement, though it required almost 300 years for large numbers to reach the Pacific Ocean. The War Between the States was in part caused by the question of population redistribution, as is shown by the controversy supposedly settled in the Missouri Compromise. Before the outbreak of the war the South and the North were struggling for preponderance in the settlement of the West, with the right to hold slaves in question. The westward movement continued in the nineteen-thirties. No other region today seems to have so strong an appeal as the Pacific Coast states. The increase of population in this region from 1930 to 1940 was 19 per cent, one and a half times as much as the next highest regional increase.

The groups of states growing fastest from 1930 to 1940 were those where the natural increase (excess of births over deaths) was augmented by migration from other states or from other countries. Two groups of states experienced rather great growth from 1930 to 1940: the Pacific Coast states and the South Atlantic states. In these two regions the total increase was far greater than the natural increase. Where did these migrants come from? Chiefly from those states where the natural increase was greater than the total increase. These states are largely agricultural and contribute population to the states that are more highly industrialized.

ECONOMIC OPPORTUNITY AND POPULATION REDISTRIBUTION

People are supposed to migrate where they can find riches, whether it be to the Klondike or Hollywood. The movement of population is away from the farms where the median family wage or salary income was about $453 in 1939, one third as great as it was in the cities where it averaged $1463.[1] Also the regions that grow the fastest are often the regions with the highest rate of income. The migration outward from the Southern states, especially since the gates at Ellis Island were closed to European immigrants, has been particularly pronounced; the Southern states have low family incomes. However, the cost of

[1] STATISTICAL ABSTRACT, 1943, p. 390.

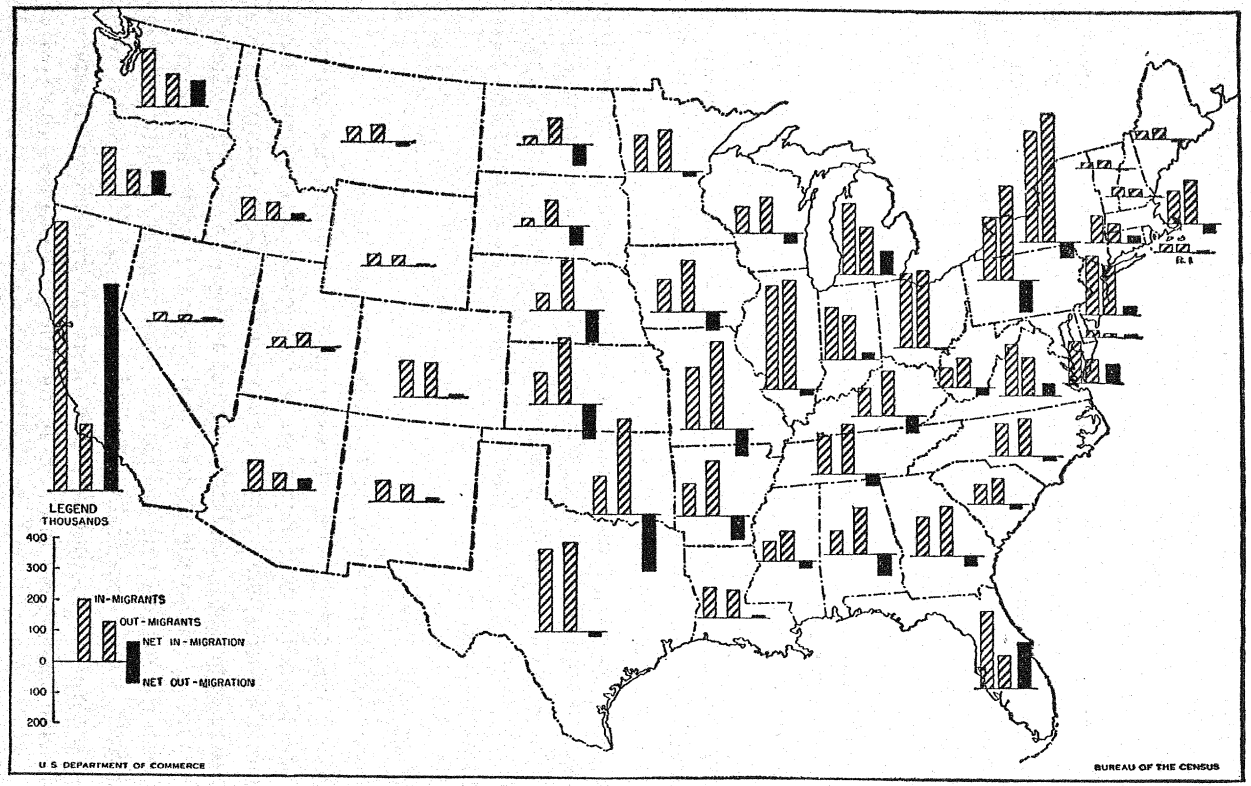


FIGURE 73. POPULATION MOVEMENTS BY STATES, 1935–1940

The rural states, in general, are the ones that have suffered a loss in population due to migration, made possible because of their great natural increase, that is, an excess of births over deaths. From United States Bureau of Census.

living is low in the South, and the money income of a region should be interpreted in terms of prevailing prices.

Distribution of economic opportunity in the United States. High incomes are not as good indices of economic opportunity as are increases in income, but unfortunately data concerning the latter are not available. Recently an attempt has been made to differentiate planes of living, using measures other than estimated money income. The measures are based upon five indices: occupants per room, radios, automobiles, income, and level of education. The accompanying map (Figure 74), constructed by the Bureau of Agricultural Economics, shows the rural level of living index for the United States by counties in 1940. In broad lines it corroborates the estimated income data by states in showing a low plane of living in the South, and a high level on the Pacific Coast, in the states around the Great Lakes, and in the northeast. The map does indicate a high standard of living in the middle agricultural states just west of the Mississippi, yet curiously the natural increase in this region was greater than the actual increase, which was quite low from 1930 to 1940.

Population moves in search of economic opportunity but it does not move as rapidly as water does in seeking its level. There are mining towns near mines that are closed, but the population does not migrate. People are leaving the eroded lands of the southern Appalachians, but not as rapidly as they might, for the counties are still populated. The dust bowl in the semi-arid lands of the West still has farmers fighting the hazards of climate. Cut-over woodlands in the northern Great Lakes region still contain a lingering population, though the climate and soil are not suitable for prosperous farms. The average size of farm in the South is one half what it is in the rest of the nation, but the size of farm in the South and elsewhere is not being equalized rapidly.

Factors deterring migration. There are many reasons why people do not move quickly. They may own land or property which they cannot sell at a fair price. Nor are they assured of jobs or a livelihood in other places. Unemployed coal miners may not move because they hope the mine will reopen. Moving one's residence some distance means degrouping the family, breaking with old friends and separating children from their playmates. Those who move most readily

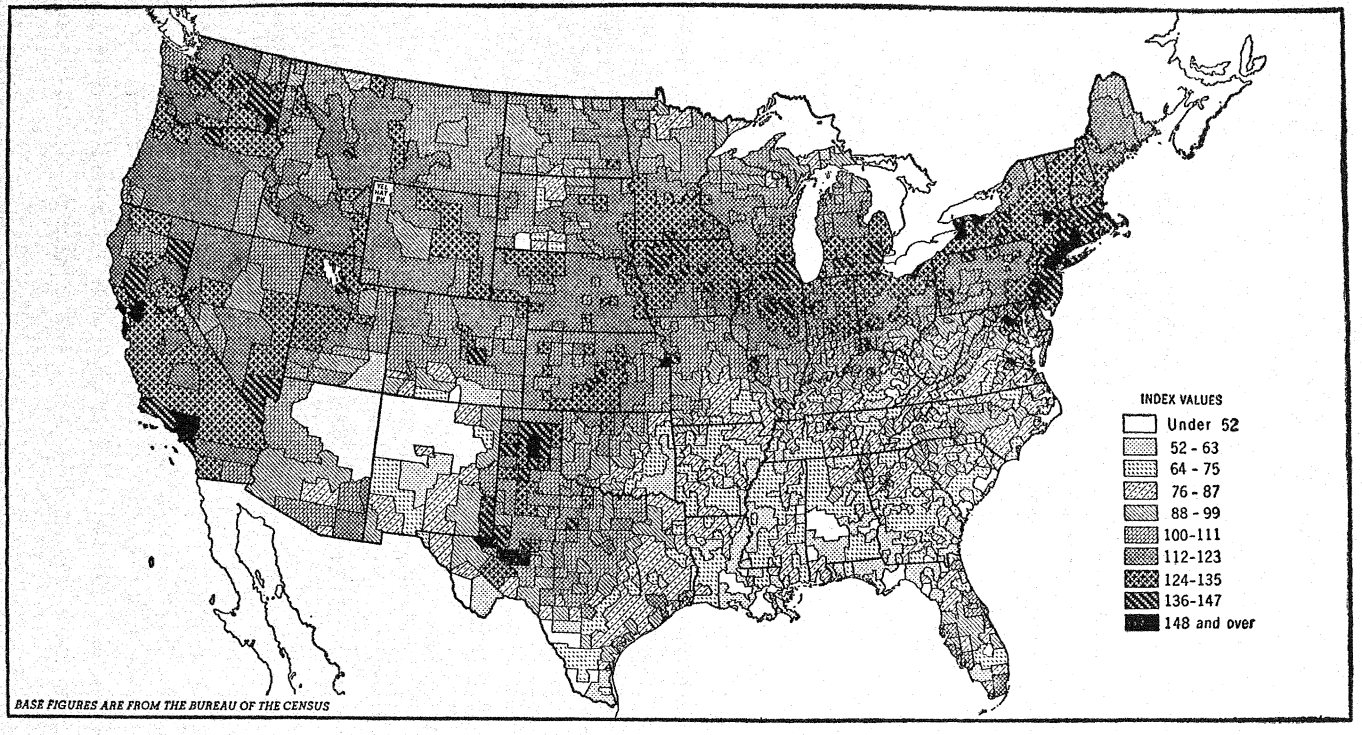


FIGURE 74. RURAL LEVEL OF LIVING INDEX, 1940

The heavy shading shows regions of higher standard of living. From United States Department of Agriculture, Bureau of Agricultural Economics.

are the young adults who are best equipped and who have least to lose.

Effect of natural increase on regional inequalities. Although the movement is not as rapid as it might be in view of the fact that no population barriers exist between the states, population redistribution by migration tends to correct the inequalities in community and regional income. Hence it is an important factor. But population redistribution by balance of births and deaths is not smoothing out the inequalities of income. Rather, natural increase is augmenting the inequalities, since the poorest regions have the highest birth rate. The regions of the United States with the lowest plane of living have a fertility that is 77 per cent in excess of that necessary to replace the population. When the planes of living are ranked in six groups from lowest to highest, the areas with the next lowest plane of living have an excess fertility of 51 per cent.[1] The next two planes of living have fertility rates that are 31 and 12 per cent in excess. On the contrary, rates for the next highest and the highest planes are so low that these groups lack enough children to replace themselves, the deficiency being 4 per cent and 17 per cent respectively. The Far West has the highest standard of living and the lowest fertility. The South has the lowest standard of living and a high replacement rate.

As would be expected, the combination of high birth rates and low per capita income in the South produces problems of health, education, and social welfare generally. One interesting aspect of this situation is that the poor regions bear the cost of rearing the population which they present gratis as workers to the richer sections, and otherwise contribute wealth to the cities. O. E. Baker [2] summarizes the situation from 1920 to 1929 as follows:

> The cost of the contribution which the farming people have made to the productivity and the prosperity of cities, suburbs, and villages is greater than is commonly recognized. This cost has fallen with especial weight on the less commercial farmers. If it costs $2000 to $2500 (at predepression prices) to rear and educate the average child on American farms

[1] PROBLEMS OF A CHANGING POPULATION, National Resources Committee (Washington: Government Printing Office, 1938), p. 136.

[2] O. E. BAKER, "DISTRIBUTION OF THE POPULATION IN THE UNITED STATES," THE ANNALS, 188: 271–72, November, 1936.

to the age of 15, when he may be assumed to be self-supporting (and $150 a year does not seem an excessive estimate of the cost of food, clothing, medical services, education, and all the incidental expenses), the 6,300,000 net migration from the farms during the decade 1920–1929 represents a contribution of about $14,000,000,000. This contribution is almost equal to the value of the wheat crop plus half that of cotton crops during these years.

Nor is this all. When the farmer and his wife grow old and die, the estate is divided among the children. During the decade 1920–1929 about one fifth of the farmers and their wives died, and their estates were distributed among the children. One third or more of the children had moved to town, and many of those children who remained on the farm had to mortgage it to pay the brothers and sisters who lived in the cities their share of the estate. A rough estimate indicates that between $3,000,000,000 and $4,000,000,000 was transferred from the farms to the cities and villages during the decade 1920–1929 incident to the settlement of the estates.

Although it is not intended to draw up a balance sheet of rural-urban contributions, it is worthy of note, in passing, that there are great movements of farm wealth to the cities in addition to those incident to migration. Interest on debt paid to persons other than farm operators amounted to about $7,500,000,000 during the decade 1920–1929, and rent paid to persons other than farm operators amounted to about $10,500,000,000. These payments are of a different character from the movement of wealth incident to migration, but there can be little doubt that portions of these payments were for the use of capital that had been previously transferred to the cities as a consequence of migration. The total of these interest and rent items is only a little greater than that represented in migration, including the wealth that flowed to the cities in the settlement of estates. The total movement from these four sources appears to have been about $35,000,000,000 during the decade, or about $3,500,000,000 a year, which was about one third of the average annual gross income of all farmers during the decade.

With regard to the burden of rearing children, the working population of the southeast has seventy-five per cent more children to educate than does a similar number of adults living on the Pacific coast. The number of children 0 to 19 years of age to 1000 adults 20 to 64 years of age in different regions is shown in Table 17.

TABLE 17. THE TASK OF REARING CHILDREN BY REGIONS

Region	Children under 20 per 1000 adults under 64, 1940	Per cent of U.S. Children	Per cent of U.S. Income*
New England	523	6	8
Middle Atlantic	497	19	28
East North Central	534	19	22
West North Central	587	10	8
South Atlantic	721	16	10
East South Central	785	10	4
West South Central	706	11	6
Mountain	681	3	3
Pacific	444	6	10

* Income received by individuals by regions, 1940. THE ECONOMIC ALMANAC, *1943–44*, National Industrial Conference Board, p. 367.

The Deep South has only 10 per cent of the national income with which to educate 21 per cent of the nation's children. The Far West has only 6 per cent of the children, but 10 per cent of the income, and the Middle Atlantic states have 28 per cent of the income with which to rear 19 per cent of the children. There are some federal grants-in-aid to rural education, but most public school education is on a local basis. Redistribution of population vitally affects standards of living and education.

Population policy and internal migration. Population policy in the United States has concerned itself little with either raising the birth rate among the receivers of high income, or with discouraging high birth rates among those with low incomes. The situation, however, is changing and it is possible that without any public policy the birth rate may fall quite rapidly among the poor, though it may not be raised among the rich without public effort. Other aspects of the problem of the distribution of population have already been incorporated into the responsibilities of government. Population redistribution by migration has become a concern of government in Germany, England, and other countries. The United States government set up a Resettlement Administration in the 1930's, and a few states, like Wisconsin, have zoned certain counties for depopulation. The whole question of population redistribution within a state is a major part of a national population policy.

SUMMARY

In the chapter on "Human Ecology" it was shown that a combination of geographical and cultural factors determines the distribution of population at any given time. In the present chapter this point has been made more explicit with reference to the modern situation. Modern civilization rests on agriculture, which demands fertile soil, and also on manufacturing, which demands coal and iron; hence, as would be expected, the densely settled areas of the world are Europe, eastern North America, southern China, and India, where nature supplies the needed materials and where the level of culture is such as to permit their utilization.

It is noted that the remarkable development of culture known as the Industrial Revolution originated and flourished among Europeans. This priority in cultural development has had the effect of permitting an increase in the number of white persons to the point where they constitute a larger proportion of the world's population than do any other people. The popular belief in a rising tide of color is seen to be based on fear and prejudice rather than on fact. Actually there has been a recession of color. Europeans have increased most rapidly of all peoples in the last 300 years, and have also achieved the widest dispersion over the face of the earth.

Changes in the distribution of population result from the operation of two principal factors, migration and the ratio of births to deaths. People migrate because of the attraction of the new region, or the repulsion of the old, or both. In the past, the most outstanding dispersal of population has been from Europe, but the present unfavorable reproduction rate in northwestern Europe and in countries settled by Europeans suggests that this may not be the case in the future. Rather it is the nations of southeastern Europe and the Orient, with a favorable true rate of increase, that may enter a period of expansion as the Industrial Revolution develops among them. While these differentials in the birth rate may have a significant effect in changing the relative strength of nations, as was shown to have been the case in the past, the spread of birth control may serve as a counteracting force.

In the past the growth of population led to migration over great distances. But in due course the available lands were occupied, and with the development of great, powerful nations, limitations have now

come to be placed on emigration and immigration. The result has been a curtailment of international migration and an accentuation of mobility within the nation in quest of a higher standard of living. In the United States there has been a pronounced shift in population from farms to city and metropolitan areas, particularly from the farm regions of the South to the Pacific coast and the South Atlantic states. The trend toward the richer areas from the poorer ones tends to correct regional inequalities in income, but is counterbalanced by the much higher birth rate in the poorer areas. This means that the poorer areas, like the South, bear the expense of rearing a disproportionate share of the nation's children, while the richer areas benefit by receiving many of them when they are old enough to work.

QUESTIONS FOR DISCUSSION

1. What are some of the advantages of having accurate censuses of various peoples? What cultural factors explain the lack of such data for certain groups?
2. How is the widespread dispersal of European stock to be accounted for? What is its significance?
3. Where are the most densely populated regions of the world? What factors determine this density?
4. How has the distribution and density of the various races been altered during the past three centuries? How do you account for these changes?
5. How do the three principal races now compare in point of numbers? Is the white race faced by a "yellow menace"?
6. What factors cause people to migrate? Which factor do you think to be most important of all?
7. Toward what sections of the world has most migration taken place in the last one third of a century? Why?
8. How valid is the theory that population pressure causes war?
9. What are, at present, the chief barriers to international migration? Are they likely to increase or decrease in the future?
10. What type of community in the United States has been growing fastest in the last decade? How do you explain this growth?

11. What factors account for the drift of population from farms to urban areas? Will the trend continue?
12. How is the present popularity of the Pacific coast states to be explained? Is Horace Greeley's advice: "Go West, young man," still sound?
13. How do the Pacific coast states benefit by the high birth rate of the South?

TOPICS FOR REPORTS

1. The history of the United States Census Bureau.
2. The wanderings of preliterate peoples.
3. The slave trade and the redistribution of African Negroes.
4. Estimates of world population in the seventeenth, eighteenth, nineteenth, and twentieth centuries.
5. Factors in the extinction of the Tasmanians.
6. The relation of modern transportation to migration in the last century.
7. Problems of the international control of population redistribution.
8. A comparison of the standard of living and the birth rate for two regions of the United States.
9. The population of a defunct mining community.

SELECTED READINGS

CARR-SAUNDERS, A. M., WORLD POPULATION: PAST GROWTH AND PRESENT TRENDS. Oxford: Clarendon Press, 1936.

This is the best general statement about world population that we have, and it is reasonably up-to-date.

FERENCZI, IMRE, and WALTER F. WILLCOX, INTERNATIONAL MIGRATIONS. New York: National Bureau of Economic Research, 1929.

Though this book is a decade old, the first volume contains an excellent compilation of international migration data. In

the other volume there are several interesting articles by competent population experts.

GOODRICH, CARTER, *et al.*, MIGRATION AND ECONOMIC OPPORTUNITY. Philadelphia: University of Pennsylvania Press, 1936.

The relation of internal migration and equalization of economic opportunity is probably the major population problem of the United States at the present time. This book presents very sharply and clearly the nature of the problem.

HILL, JOSEPH A., "COMPOSITION OF THE AMERICAN POPULATION BY RACE AND COUNTRY OF ORIGIN," ANNALS OF THE AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE, 188:177–84, November, 1936.

The only comprehensive source on the proportion of western European stock in the United States population. The estimate is based on names, and there is undoubtedly a wide margin of error.

JEROME, HARRY, MIGRATION AND THE BUSINESS CYCLE. New York: National Bureau of Economic Research, 1926.

This book contains data to support the theory that in migration to the United States the pull is greater than the push.

PROBLEMS OF A CHANGING POPULATION, National Resources Committee. Washington: Government Printing Office, 1938.

This study, which is most attractively presented especially in regard to charts, puts emphasis on the significance of population change.

THOMAS, DOROTHY S., RESEARCH MEMORANDUM ON MIGRATION DIFFERENTIALS. New York: Social Science Research Council, 1938.

Out of the vast literature in the field of migration, few studies have proved anything. The author sorts out what is worth while and reliable in the literature on the subject for the United States and for Europe as well.

THOMPSON, WARREN S., POPULATION PROBLEMS. New York: McGraw-Hill Book Company, 1942.

This account of the population of the United States is a good, straightforward, well-balanced, clean-cut presentation. An excellent treatment of the existing problems.

THOMPSON, WARREN S., and P. K. WHELPTON, POPULATION TRENDS IN THE UNITED STATES. New York: McGraw-Hill Book Company, 1933.

An excellent statement in brief compass of the population situation in the United States.

THOMPSON, WARREN S., RESEARCH MEMORANDUM ON INTERNAL MIGRATION IN THE DEPRESSION. New York: Social Science Research Council, 1937.

A very good special study on what has happened to migration as a result of the depression in the early nineteen-thirties.

VANCE, RUPERT B., POPULATION REDISTRIBUTION WITHIN THE UNITED STATES. New York: Social Science Research Council, 1938.

Vance has taken the data and problem presented by Goodrich and others and has indicated studies that ought to be undertaken by students of population in the United States with a view to correcting the maldistribution of population.

XVI. THE GROWTH OF POPULATION

THE SIZE of a community is often a matter of local pride, particularly in the United States, where "bigger and better" is frequently the slogan. Portland wants to be bigger than Seattle, Seattle to be bigger than San Francisco, which in turn would like to be as big as Los Angeles. This ambition to be bigger is noticed particularly in the years when the decennial census of the United States is taken. Many cities will take in additional territory just to show a greater growth than a rival. If the census does not show that they have grown enough, some cities may demand that a new count be taken, saying their population must have been under-enumerated. Every citizen who knows about the growth of the United States is proud of the record. There is a prejudice in favor of the growth of population. Though an individual may be unaware of such a prejudice, it may express itself later as a feeling of elation over growth, or may show itself in an argument. Since such a bias exists, it is better to approach the study of population growth in a detached manner, as should be the case also with the study of the race question and of many other sociological problems. After the problems are studied, then emotion may be mobilized to do something about them.

People often feel that they can do something to make their communities grow, as, of course, they can. These efforts are directed toward attracting new residents. Migration thus becomes a proper subject of governmental policy, and is now subject to regulation in the United States. In contrast, the growth of population by births and deaths is often viewed as a matter of nature, and not a proper subject for state population policy. Traditionally it has been felt that there is an inevitability about birth and death that is beyond the power of the state. It is true now that the state exerts powerful and successful efforts to prevent deaths, not as a population policy, but in the interest of the individual. Nevertheless, states today consider the size of the population as a field in which the government may, or indeed, must, exert an influence, whether for a bigger army or to keep out undesirables. All modern states have a population policy of some kind or degree, which

fact shows the need for fundamental knowledge of the facts concerning the population of the state.

THE INCREASE IN POPULATION

The population of the world has been growing rapidly in the past three hundred years. The estimates of the population growth of the world are given in Table 18.

TABLE 18. WORLD POPULATION GROWTH *

Year	Population (millions)
1650.....	545
1750.....	728
1800.....	906
1850.....	1171
1900.....	1608
1939.....	2170

* Adapted from A. M. CARR-SAUNDERS, WORLD POPULATION, p. 42, and STATISTICAL YEAR-BOOK OF LEAGUE OF NATIONS, 1941–42, p. 18.

The world population has quadrupled in three hundred years and almost doubled in the past one hundred years. Prior to 1650 little is known about the growth of population, but it is generally thought that the plow brought a larger population than hoe culture could support, while domesticated sheep and cattle increased the population over what it was when food gathering and hunting were the sources of food. In earlier stages of hunting, food was scarcer than in the later stages.

Europe has grown faster in population than has the world as a whole. Europe has five times as many people now as in 1650. The growth in Asia has been at the same rate as the world as a whole. Africa seems to have increased only about fifty per cent. The Americas grew from an estimated 13 million to 273 million. Table 19 gives the detailed estimates of this increase.

TABLE 19. GROWTH OF POPULATION IN THE AMERICAS, 1650–1933 *

Date	Population (Millions)
1650.....	13
1750.....	13
1800.....	24
1850.....	59
1900.....	144
1939.....	273

* Adapted from A. M. CARR-SAUNDERS, *op. cit.*, p. 42, and YEAR-BOOK OF LEAGUE OF NATIONS, *op. cit.*, p. 14.

THE PESSIMISM OF MALTHUS

If the world continues to grow as it has in the past three hundred years, in another three hundred years the population will be nearly 8½ billion, and by 2500 there will be nearly 25 billion. One famous thinker and writer, Thomas Malthus [1] (1766–1834), viewed such a possibility of great growth of population as a tragedy.

Not all people are optimistic about the growth of population. As the first major student of the question, Malthus was opposed to population growth as it was then occurring. His objection was that population grew faster than the food supply. He claimed that if there were four children in the first generation, then in the second, if the same fertility rates prevailed, the four offspring would in turn have 16, and these 16 would be succeeded by 64, and so on. The population would thus grow very fast. Even if the population were just doubling instead of quadrupling each generation, it would go forward very rapidly, as is seen by the geometric progression 2, 4, 8, 16, 32, 64, 128, 256, 512, 1024, and so on. The total numbers increase very rapidly after the series has run a while, even though the rate factor remains the same. But food, he argued, increased in an arithmetic series, such as 2, 4, 6, 8, 10, 12. By the term food Malthus really meant land on which to grow food. A food, such as corn, would increase like the population if the supply of land were unlimited. In England at the close of the eighteenth-century when Malthus wrote, the food supply could be increased only by adding more land to the cultivated areas, and the amount of land was definitely limited.

The situation he depicted was of a race between the supply of men and the supply of food. The number of men must inevitably outrun the food supply, no matter how big the handicap. For instance, a male and female rabbit were introduced into Australia in the nineteenth century. In a few years the whole continent, with its great food supply, was overrun by rabbits. They became a pest. Similarly, according to Malthus, if the Pilgrim Fathers alone had come to the United States, and they had found an empty continent, their progeny would have eventually filled it. Then the ancestors of everyone would have come over in the Mayflower.

But winning the race between the supply of men and the supply of food really meant losing. If there are few eaters and much food, the

[1] T. R. MALTHUS, THE PRINCIPLE OF POPULATION, 1909 edition.

standard of living is high, but if there are many eaters and the food supply is relatively small, the standard of living is low. Thus Malthus saw mankind doomed to hunger. What if the Black Death killed off a third of England, and as a consequence wages and the standard of living rose? It was only a question of time before the breeding propensity of the people produced as many people in relation to the food supply as existed before the plague. What if the standard of living in America is due to the scarcity of population? Soon the population will be so large in relation to the food that poverty and misery will result. Such are the implications of the Malthusian theory. Thus economics, of which Malthus was one of the founders, became known as the dismal science.

Limitation of Malthusian theory. Malthus' logic was good, but unfortunately his observations were not sufficiently extensive. He was not familiar with the conditions of population in earlier times, before the agricultural era in which he lived, for the data on primitive peoples then existing were not good. Nor, of course, could he foresee the falling birth rate which came after his time. Since Malthus' time the peoples of the western world have learned how to lower the birth rate. In 1860 the average birth rate for nine countries of northwestern Europe was 34.1 per thousand population. Seventy-five years later the birth rate had been cut in half.[1] Of course, if the falling birth rate were carried far enough, it would quite nullify Malthus' idea that man must inevitably tend to increase in a geometric ratio. He allowed for the point in his logical analysis of the problem, but he did not fully appreciate what was going to happen. This falling birth rate is a phenomenon of culture, and is not a function of biology. Malthus' doctrine was biological, and quite inadequate as an account of cultural factors in this situation. This one cultural trend of a falling birth rate has the potentiality of wiping away completely the doom to poverty which followed from his analysis.

Malthus furthermore was not realistic in regard to what has happened to the supply of food. Science has discovered how to make more wheat, corn, fruits, vegetables and animals grow per acre. However, without the falling birth rate, the population would soon have outstripped the increase in food production made possible by science.

Culture has also changed the conception of the standard of living. In the eighteenth century and earlier, the plane of living was judged a

[1] A. M. CARR-SAUNDERS, *op. cit.*, p. 64.

good deal by what it is in the animal world; that is, by the amount of food there is to eat. But now many things other than food are needed, such as silk stockings, moving pictures, toothbrushes. The concept of the standard of living is something that conveys different meanings to different persons. As it is used here it carries no implications for happiness, the moral virtues, or health. A person with a high standard of living may be very unhappy. A high standard of living means a large income, whether monetary or otherwise, and is one where the volume and variety of consumption of articles are large. The average inhabitant of the United States consumes a larger amount of goods, including radios, automobiles, tobacco, and so on, than does an average citizen of, say, Norway, who dwells in a region where farming is difficult and manufacturing not highly developed. The Norwegian may get more health or spirituality out of his standard of living than an American, but he does not have a higher standard of living as the term is used here. Generally a test of a low standard of living is the proportion of income that goes for food. In some Chinese towns, 75 per cent of the income of working people goes for food. Little is left for clothing, housing, house furnishing, medical and dental care, travel, education, recreation. In the United States about 35 or 40 per cent of the income of urban working families is spent for food.

Today, food consumed is alone not a good measure of income, as Malthus conceived it. Young boys and girls with low incomes will forego a meal or so in order to go to the movies. There are incentives to postpone marriage or to eat less in order to have this higher standard of living. The production of goods, other than food, depends upon minerals, iron and coal; hence the highest standard of living is found today where there are the highest technologies using mechanical power and metals. In this way the poverty and misery which the theories of Malthus foreshadowed are not quite as expected, though, of course, there are still poverty and suffering in the world.

Malthus also neglected the point that changes in culture may raise the standard of living. At various times in the past, changes have occurred which permitted a larger population, as well as a higher standard of living. When agriculture was invented and the farmer replaced the hunter and trapper, this result occurred. Agriculture supports a much larger population than does hunting, and the plane of living is higher. The domestication of animals had the same effect. Changes in the superorganic modify the influence of population pressure on the

food supply. Malthus would have argued that even though farming yields more food than hunting, still the breeding habits of man mean that population pressure must inevitably overtake these advances of cultural invention. But culture also changes the breeding habits of mankind, so that population does not grow in a geometric ratio.

Malthus' theory rests essentially on biological and geographical factors which are being nullified by cultural factors. But Malthus did dramatize the population problem as has never been done before or since. While his theory is not working out quite as he expected, nevertheless there remains the question of the effect of population size on the standard of living. This question is ever in the background of all discussions of the growth of population.

THE STANDARD OF LIVING AND POPULATION

The standard of living is a function of four variables, not just two (food and population), as Malthus said. That is to say, the plane of living goes up or down according to the changes in four conditions: (1) natural resources, (2) invention, (3) social organization and (4) population.

Natural resources. The effect of a diminution of natural resources is to lower the standard of living. Those countries that have poor land, no coal and few minerals have not much possibility of getting a large share of the good things of life. Similarly, the countries that are rich in resources have rich people. If the inhabitants of the United States use up all their oil, diminish their easily accessible coal and iron supplies, let the fertile soil of the sloping hillsides wash away, and allow the dust bowl to become a desert, the standard of living will be lowered. One of the reasons why England has a higher standard of living than Norway is because she has more abundant natural resources.

Invention. The effect of invention is also to raise the standard of living, as was done by the bow and arrow, the hoe, the plow, the steam engine, and the dynamo. The plane of living is higher in America now than before the discovery of America by the Norsemen, because the whites have more inventions than the red men had. China's plane of living will be higher when it has a better technology. The utilization of natural resources is not independent of the state of inventions. Waterfalls were of no use to the American Indians, but they add greatly to the wealth of the present inhabitants of the United States.

One of the most optimistic signs of a better material future is the

continued growth in the number of inventions in chemistry, electrical goods, communication, transportation, and other fields which will add to the prosperity of the country. If inventions were lost the material conditions of life would be lowered. But few inventions are ever lost, except when they are replaced by more efficient ones.

Social organization. The standard of living is further increased by a highly efficient social organization. Division of labor, more trade, a good money and credit system, efficient laborers, all tend to increase production, which means more goods to distribute among the people. On the other hand a social organization highly disorganized by war tends to lower living conditions. War sometimes means a bar to trade, currency fluctuations, bad credit, and disarranged production. For these and other reasons, Europe was slow to recover after the World War of 1914 to 1918. Revolutions also disorganize production. It is argued by some that a monopolistic organization of industry is less productive than a competitive one.

There is some discussion as to whether the economic set-up is less or more productive when it is closely related to government. It may be argued that the planning made possible by governmental control increases the efficiency of production. Controversy also exists as to the relative efficiency of communism as seen in Russia, of fascism and national socialism as found in Italy and Germany, of the co-operative systems of Scandinavia, and of the free enterprise system of the United States. These questions need not be gone into here, but they illustrate how variations in the economic organization affect the standard of living. The status of the social organization is tied up with the industrial inventions, just as truly as the industrial inventions are related to the factor of natural resources. For instance, an efficient social organization of a state with a large territory like that of the United States would not be possible without the inventions which make an adequate transportation and communication system possible. Variations in the type of economic organization produce variations in productivity and in the distribution of wealth, and therefore affect the standard of living.

Population. On the whole, a small population means a higher standard of living than a large one, as Malthus said. In the southern states of the United States the farm population is much more dense than in the north central states. There are 14 acres of cultivated land per rural inhabitant in the South, and 40 acres per rural inhabitant in the west north central states. In the South the standard of living is lower,

as would be expected. If the total value of the crops in the South is divided by the total farm population there is $170 a year per rural inhabitant. The corresponding value for the north central states is $270. India and China and Japan are densely settled and have a low standard of living. The newer countries are less densely settled, as evidenced by the United States, Canada, Australia and New Zealand, and these countries have the highest standards of living to be found anywhere in the world today.

Though a large population usually means a less high standard of living than does a small one, such is not always the case. It is possible for a country to be too sparsely inhabited, as was true of North America through much of its history, and have a lower standard of living than it would have had with a larger population. For the standard of living is also a function of the social organization and there have to be enough people to support railroads, schools, and to make a market for the cattle and wheat which the abundant acres yield. In general, however, it seems that most areas of the world have passed the point where an increasing population means a higher standard of living. Europe, Asia, and the United States are already settled.

The relation of population to standard of living is not simple. Further qualifications are necessary. Though in general a small population would seem to have a higher standard of living than a large one, other factors being held constant, it does not necessarily follow that the process of changing from a large population to a small one will be accompanied by a rising standard of living. If Sweden's population should fall from six million to five, as is predicted, it is possible that during the process the influence of the decrease may be toward lowering the standard of living, although once the change has been made, the standard of living may be higher for the smaller population. This point will be discussed further in the latter part of the chapter.

Interrelationship of all four factors. It is seen, then, that the standard of living is not a matter solely of the relation between population and food supply, but is the result of at least four factors. These must be taken into consideration in examining any population situation. Thus Italy, a rather densely populated area, had before the war a rising standard of living in the face of a growing population. The reason was that Italy had many new technologies to utilize and perhaps had a social organization that increased its efficiency. If there had not been the adoption and use of many new inventions, and if there had been

no improvement in the economic organization, the standard of living would probably have been lowered as the population increased. In China, it is not quite conclusive to attribute the low standard of living solely to the large population. Compared with Europe and America, the level of life in China is low because the Chinese do not have as advanced a technology. Japan's standard of life was raised before the war despite the rapid increase in the size of her population by an improvement in her social organization and by the adoption of new inventions.

This analysis shows that there are other factors that have to do with poverty and plenty than population and the fruition of the earth. Any attempt to appraise the influence of population must consider also the natural resources, the state of the industrial arts and the efficiency of the economic organization. A change in one of these factors may counteract the influence of another. The next step in our discussion concerns the birth rate, the only source of population increase for the world as a whole.

Causes of Population Change

THE DECREASING BIRTH RATE

For a hundred and fifty years the birth rate of Iceland was about 35 per thousand population. Iceland is mentioned because its birth records go back to 1750 and because its population was stationary until 1900, though there were fluctuations from year to year. The birth rate of the United States and of western Europe today is about half that for Iceland; Iceland's figure is probably about the same as the birth rate in western Europe a hundred years ago. How the birth rate has fallen in different countries of the world is shown in Figure 75.

The decline is hardly due in any significant degree to biological change in fecundity of the peoples concerned, though there may have been some slight variations due to the spread of disease or other factors. The postponement of marriage could only account for a small change in the birth rate, for the delay in marriage has not been great. In the United States, for instance, early marriages increased in number between 1890 and 1930, a period when the birth rate was falling.

Influence of the diffusion of contraception. The fall in the birth rate is due to the discovery of how to limit the size of the family, and to the spread of this knowledge.[1] The discovery seems to have been made in

[1] Raymond Pearl, "Fertility and Contraception in New York and Chicago," Journal of the American Medical Association, 108:1385–90, April 24, 1937.

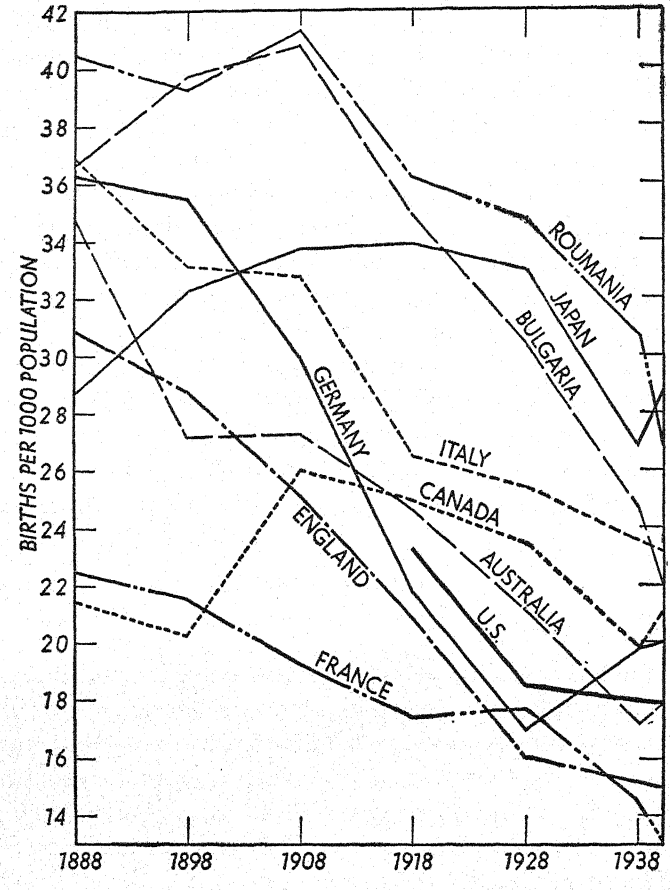


FIGURE 75. THE DOWNWARD TREND IN THE BIRTH RATES IS WORLD-WIDE

The movement began in France, but it is now falling more rapidly in some of the countries where the birth rate began to fall later. Germany, apparently through the efforts of the party in power, had an increase in its birth rates since 1933. Italy's birth rate continued to fall throughout the Fascist régime. Early figures from W. S. THOMPSON, POPULATION PROBLEMS, *p. 123 (New York: McGraw-Hill Book Company, 1935). Recent figures from* POPULATION INDEX.

France and to have spread to the surrounding regions. It spread first to the prosperous classes in the cities, who experienced the first decreases in birth rate. It has spread much more slowly to the poorer classes of the cities. Figure 77 shows very clearly that the professional and business classes have lower birth rates than skilled labor classes, while the families of unskilled laborers have the highest birth rate of any class.

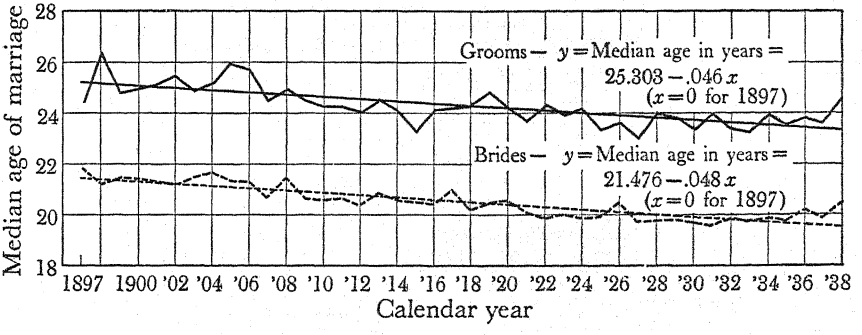


FIGURE 76. MEDIAN AGE OF MARRIAGE OF WHITE MEN AND WOMEN IN WASHINGTON COUNTY, MARYLAND, FROM 1897 TO 1938

(Included are only first marriages of residents of the county.) These data are for only one county. The data are not available for the United States as a whole, but the evidences on the per cent of young people married in the census figures are quite in agreement with the graph showing that the age at marriage has been falling. From HUMAN BIOLOGY, *vol. 12, no. 1, p. 65, (Baltimore, Maryland: The Johns Hopkins Press, February, 1940).*

Similar conclusions are drawn from economic classes, as shown by the median rentals paid in residence districts. In Chicago in 1930 in residence areas where the rentals averaged $75 a month and more, the birth rate per 1000 women 15 to 44 years old was 34, while among women of the same ages who paid rents of $30 a month or less the birth rate was 88.[1] In the United States, the decline in the birth rate was experienced first by the native white population and somewhat later by the foreign-born white. For instance, in the Chicago study just cited, the rate for the native whites was 55, and for the foreign whites 76. On the other hand, for the prosperous foreign-born whites, able to pay rents of $75 a month or more, the rate, 31, was lower than for the native whites, 35, for the same age groupings. The foreign-born whites have a higher birth rate because they are poorer, rather than because they are foreign-born.

The spread of the decreasing birth rate to the farms has been much later than to the cities. Thus in 1940 in the United States, 100 farm women over 45 years of age had had 445 children, while in the cities women of the same age had had only 291 children.[2] This greater incidence of the falling birth rate in the city than on the farms is shown in

[1] PHILIP HAUSER, "DIFFERENTIAL FERTILITY, MORTALITY AND NET REPRODUCTION IN CHICAGO, 1930," Ph.D. thesis, University of Chicago, Chicago, August, 1938.

[2] Calculated from THE STATISTICAL ABSTRACT, 1943, p. 53–55.

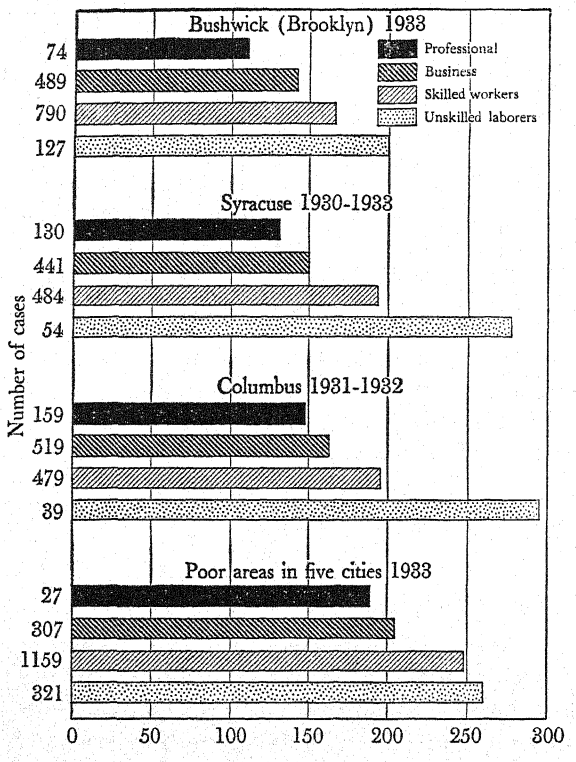


FIGURE 77. DIFFERENTIALS IN BIRTHS

The lengths of the bars indicate the children born per 100 wives under 45 years of age, according to usual occupation of husband. The rates have been standardized for age; data relate to unbroken unions in which the husbands and wives were native-born. The "poor areas" in five cities are the sections covered by the "Health and Depression Survey" in Baltimore, Cleveland, Detroit, Pittsburgh, and Syracuse. Do the comparative lengths of the bars in the above diagram indicate a temporary situation? From PROBLEMS OF A CHANGING POPULATION, *p. 140, National Resources Committee (Washington: Government Printing Office, 1938).*

Figure 78, comparing the wives having no children and those having large families. One hundred and seventy-one out of 1000 urban women over 45 (ever married) had borne no children (1940) while only 89 out of 1000 farm women were without children. Two out of 5 farm women had borne 5 or more children compared to 1 out of 5 urban women.

That the custom of having smaller families spreads from the city to the farms is shown in Figure 79. It shows that the center county, in which Des Moines is located, has a ratio of 79 children under 10 years of age to 100 women 20 to 45 years of age. In the first tier of counties surrounding

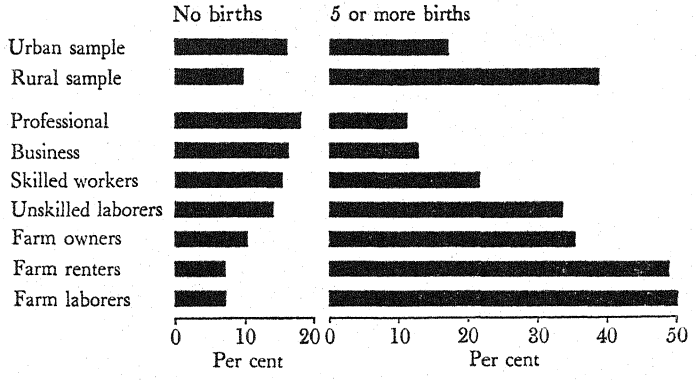


FIGURE 78. BIRTHS BY ECONOMIC CLASSES

The well-to-do have fewer babies born than the poor. Does this mean that those who can give children the most advantages bear the fewest children? Perhaps in another twenty-five years the poor may have fewer children than the rich. From PROBLEMS OF A CHANGING POPULATION, *p. 143, National Resources Committee (Washington: Goverment Printing Office, 1938).*

Des Moines the ratio is 107, about a third larger. The next removed tier of counties has a slightly larger ratio, 110. For the third tier it is 119 and for the fourth, 135. Thus the further away the farm families are from the city the higher is their birth rate.

The habit of limiting the size of the family spread from western Europe outward. The movement soon reached the United States, Canada, New Zealand, and Australia. In the countries of eastern Europe, such as Hungary, Russia, Bulgaria, Rumania, and Poland, the birth rate is still high. It is even higher in Egypt, India, and China. These data may be readily seen in Table 20. In northwestern Europe in 1938 the average birth rate was 16.5, in southern Europe it was 23, and in eastern Europe the average rate was 30.1. In the Orient, in India, China, and Japan, the average birth rate was 33.3.

The spread of the knowledge of how to limit the size of families has been somewhat like the diffusion of the automobile. The automobile was adopted by the well-to-do inhabitants of the cities first, then it spread to the farms, perhaps more rapidly than did the decline in the birth rate. Only a few of the unskilled laborers have automobiles. Automobiles are not so numerous in eastern Europe, while in the Orient they are even scarcer. The parallel should not be carried too far. It is not cited to indicate any causal connection, but rather to show that any invention has a pattern of spread; it does not diffuse over the world instantaneously, but some classes and countries adopt it first. In a

TABLE 20. THE BIRTH RATES IN CERTAIN SELECTED POPULATIONS: 1938 *

Country	Birth Rate
Sweden	14.9
Norway	15.8
France	14.6
Belgium	15.6
England and Wales	15.1
United States	17.9
Canada	19.8
Germany	19.7
Finland	20.0
Irish Free State	20.0
Hungary	19.5
Netherlands	20.6
Italy	23.6
Spain	22.4
Bulgaria	24.4
Poland	29.6
Rumania	30.6
Japan	26.7
Chile	33.6
Egypt	43.5
Russia	43.8 †

* STATISTICAL YEAR-BOOK OF THE LEAGUE OF NATIONS, 1938/39, pp. 42–44. The rates for years beyond 1938 are not representative because of the war.
† Data for 1930.

similar manner the course of the spread of coffee drinking or the use of tobacco can be traced. There are, of course, peculiar features to the spread of any invention or discovery; these features involve its cost, manufacture, localized oppositions, and the like.

To the limitation of family size there is much opposition from various sources. Some religions are opposed, on moral principles, to limitation of the number of offspring. Other groups believe that children add much to the joy of living and bring comfort and joy to old age, and hence are opposed to very small families. On the other hand, many people feel that children should be given a full education and the various opportunities of life, and therefore favor some limitation of family size unless the children can be given the advantages which modern society offers.

Future trends in the birth rate. How far will the birth rate fall? The answer lies in the future and cannot be given precisely, but an approximate answer may be attempted. In the course of time, one would think that the small-family system will spread to eastern Europe and to the Orient. It also seems possible that the classes of unskilled labor will have as small families as shopkeepers and skilled labor. The birth rate

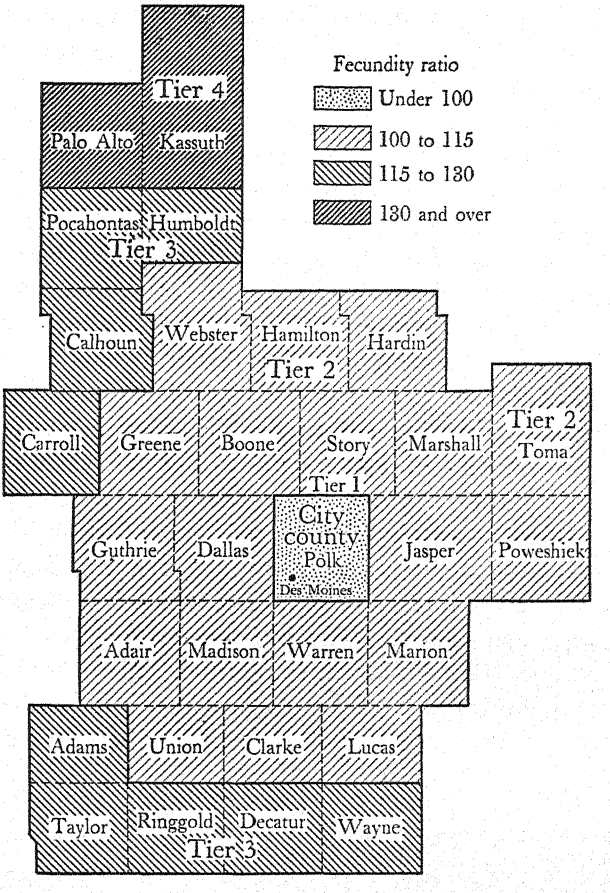


FIGURE 79. FECUNDITY RATIOS IN THE DES MOINES AREA, BY TIERS OF COUNTIES, 1930

The drop in the birth rate spreads from the city outward. Perhaps this map shows only a temporary situation. Will the birth rate in the last tier of counties drop to as low a rate as that of the county in which Des Moines is situated? From J. A. KOLB *and* E. DE S. BRUNNER, A STUDY OF RURAL SOCIETY, *p. 181 (Boston: Houghton Mifflin Company, Revised and Enlarged Edition, 1940).*

among the foreign-born has fallen, between 1920 and 1940, more than the birth rate of the native white classes.[1] Whether the birth rate will ever be as low on the farms as in the cities is a question. The farm seems a more normal and healthy place in which to rear children than does the smoky, noisy city with its tall apartments and streets filled with danger from speeding automobiles. But the cities may eliminate these

[1] VITAL STATISTICS RATES IN THE UNITED STATES, 1900–1940, p. 681.

difficulties and the farmers may realize that they can give more education to fewer children. In general, then, it is thought that the birth rate will fall further among the low-income groups which are numerous, and on the farms, which now house one quarter of the population. If this be the case, the birth rate of the nation will fall further. In 1940 there were fewer children under five than there were from five to ten years of age. Hence the number of adults to bear children will be fewer, and fewer children will be born. In addition, it may be noted in Figure 75, which shows the course of the birth rate in different countries, that in no country where the birth rate has begun decreasing has it increased, with the possible exception of Germany during the first years of the régime of the National Socialists which began in 1933, and during the years of preparation for war in some countries. There are short swings upward in years of prosperity and occasionally in the first years of a war and when the soldiers return after the war is over. The efforts of Italy to prevent the decrease of births have not succeeded, as the birth-rate curve for Italy shows. Of course, eventually the drop in the birth rate must cease; otherwise it would reach zero, which is not conceivable except to the mathematician. The indications are, therefore, that the birth rate will continue to fall for some time. Since births and immigration are the only sources of population growth for a state, it is to be expected that the growth of population will not be so rapid in the near future.

THE FALLING DEATH RATE

The population of an area may suffer loss in two ways: through death and through emigration. In Iceland a hundred and fifty years ago the death rate was around 35 per thousand population, thus equaling the birth rate and maintaining a stationary population. Probably the same situation held in Europe and America at that time. But now the death rate in western Europe and in the United States is about a third of this figure. How the death rate has been falling is shown in Figure 80 which gives the death rates by years for the different countries of the world.

Infant mortality. The causes of the saving of life are several. First may be mentioned the saving of lives of infants. All peoples have probably had previously a very high infant death rate, perhaps more than a quarter of the infants dying during their first year. The countries for which there are good data suggest that in earlier times the infant death rate may have been as high as 250, or even higher.

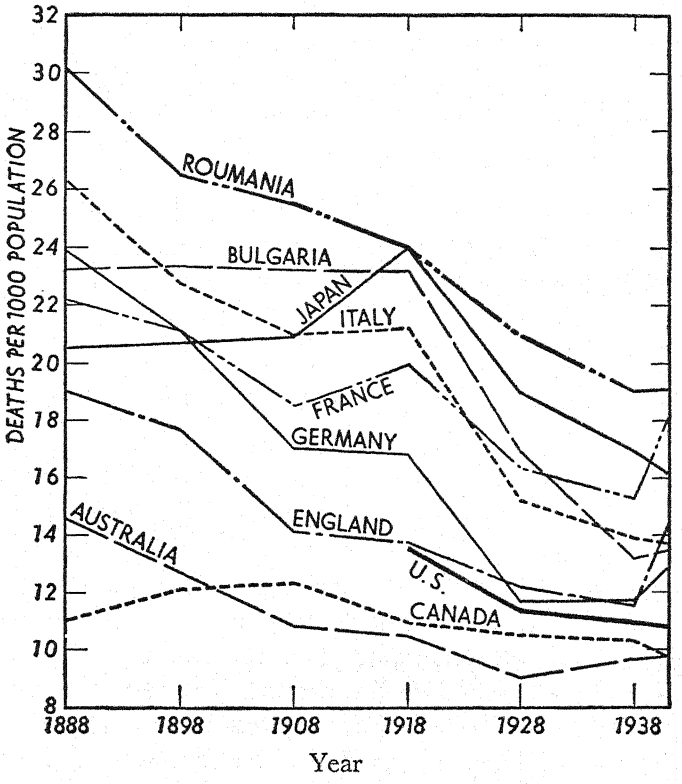


FIGURE 80. DECLINING DEATH RATES IN SELECTED COUNTRIES

The falling death rate is due, in the main, to improved sanitation and medical care, though countries receiving immigrants have conditions more favorable to a low death rate than do those from which the immigrants come. Most people migrate during the early years of adulthood, when the death rate is low. Based on material from W. S. THOMPSON, POPULATION PROBLEMS, *p. 174 (New York: McGraw-Hill Book Company)*, STATISTICAL YEARBOOK OF THE LEAGUE OF NATIONS, *1938–39, and* POPULATION INDEX, *vol. 10, no. 3.*

In the late nineteen-thirties in Austria the infant death rate was 69. In the eighteen-eighties it was 250. Infant mortality rates, of course, vary from country to country. In Chili, with its large Indian population, in 1941 the deaths of infants under 1 year per 1000 births were 200. In the United States in 1942 it was 40, while in New Zealand's European population it has reached the low point of 29. Only about 1 in 35 babies dies in the first year in New Zealand, as compared with about 1 in 4 in earlier times.

Deaths have been reduced at other ages also, though not so much as in infancy. The conquest of contagious and infectious diseases such as typhoid fever, scarlet fever, and yellow fever, has meant a great saving

in human life. The achievement in reducing deaths has been due to the development of medical science with its vaccinations and antitoxins and general medical knowledge. Sanitation shares with medicine part of the honor of increasing the expectation of life.

Death rates at various ages. How the mortality rate has been lowered at the different ages is shown in Table 21 which gives the mortal-

TABLE 21. MORTALITY RATES OF WHITE MALES, PER 1000, U.S. REGISTRATION AREA, 1901 AND 1939–41 *

Period	Age									
	0	10	20	30	40	50	60	70	80	90
1901.....	133.4	2.7	5.9	8.0	10.6	15.4	28.6	58.9	133.5	262.8
1939–41....	48.1	1.0	2.1	2.8	5.1	11.6	25.5	54.5	124.7	248.9

* 1901 figures from LOUIS I. DUBLIN and ALFRED J. LOTKA, LENGTH OF LIFE (New York: Ronald Press, 1936), p. 68, Table 12. 1939–41 figures from VITAL STATISTICS — SPECIAL REPORTS, Vol. 19, No. 4.

ity rates at each ten-year period throughout life, for the registration states of the United States. This table is for white males; however, the data for females support the same general conclusion. Table 21 shows in the first column that at the beginning of the century 133 deaths of infants occurred per thousand while thirty years later only 48 died. Thus 85 infants out of a thousand now live who would have died if they had been born at the beginning of the century. The death rate has been lowered more in the early ages than for the years over 60. The reason why the death rate has not been appreciably lowered for the older ages is the lack of success of scientific medicine in attacking the degenerative diseases.

Age distribution and death rates. The table showing the death rates at different ages of life (Table 21) indicates that the visits of the grim reaper are more likely to come in early childhood and after fifty years of age than at other times. The least hazardous time of life is late childhood, but relative security from death is also found in youth and early middle age. The hazards appear later. Since infancy and old age are the times in life when we are most likely to die, it follows that a community with many babies and elders will have a high crude death rate, as measured by the total deaths over the total population, merely because the age distribution favors death. Such is the case with some of the small villages, from which many youth have moved away, leaving a larger percentage of babies and old people.

On the other hand, a rapidly growing city is likely to have a large proportion of young men and young women, for these are the people who are most ready to migrate. They are more likely to be free and footloose then, and new industries are more likely to employ young people. Since a growing city has a large proportion of young persons, it will have a small proportion of children and old persons. A low death rate is favored by such an age distribution, for most of the population are at ages when there is little death. Thus a village decreasing in population tends to have a high death rate and a growing city a low one, irrespective of health conditions, merely because the one has many infants and old persons and the other has many young adults. The death rate might be exactly the same for each age group, the two places might be located side by side in the same locality and they might be equally healthful, yet the old village would have a higher death rate than the young city solely because of its unfavorable age distribution. Hence the comparison of crude death rates between communities is misleading.

THE LIFE TABLE

The age composition of any community has been shown to be disturbed by migration. Usually immigration increases and emigration decreases the proportion of young adults. In studying death rates, one way of eliminating this disturbing factor of a varying age composition is by constructing a life table. This is done by beginning with a definite number of babies born in a given year and computing, from the death rates by years of life existing for any given date, the number surviving each year thereafter until the last one has died, assuming that the conditions affecting the death rates do not change. There is thus no migration to consider. In this way the average length of life of the cohort of babies can be computed. The average expected length of life of babies born in the United States in 1941, computed in this way, was sixty-four and one-quarter years if the conditions making for death remain the same as in 1941. This figure is sometimes called the expectancy of life at age 0. We may say that the expectancy of life in 1941 was 64.25 years in the United States.

The life table makes possible a clear comparison of the average expectancy of life in two communities. Babies born in Georgia and Michigan may expect to live 61 years, if conditions should continue the same as they were in 1930, even though the crude death rate in Georgia is 12.4, and 10.7 in Michigan. One of the reasons why the crude death

rate in Georgia is higher than in Michigan, though the expectancy of life is the same in the two states, is that there is a smaller percentage of persons in Georgia at ages when the hazards of life are least. In fact, Georgia sends many of her people at their healthiest ages to work in the automobile factories of Michigan. In Georgia 35 per cent of the population was from 15 to 45 years of age, in 1930, while in Michigan it was 40 per cent. Hence Michigan has a larger proportion of population at the ages of low incidence of death.

The length of life is increasing. The expectancy of life for males was only 35 years in Massachusetts at the close of the Revolutionary War.[1] At the time of the Civil War it was 39, and by the turn of the century it had risen to 47 years. In 1920 it was 55 years, by 1930, a baby boy could, on the average, expect to live 59 years, and by 1941, he could expect to live 63 years. The expectancy of life of females follows the same course, except that females live 2 or 3 years longer. The

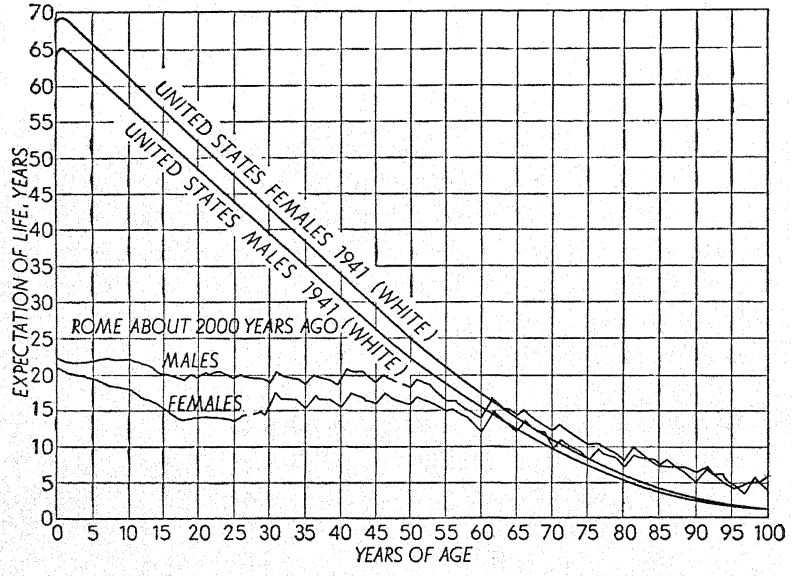


FIGURE 81. EXPECTATION OF LIFE IN ANCIENT ROME AND IN MODERN UNITED STATES

Rome must have been a very unhealthful place, especially for children, for the expectation of life there was only about one half what it was in the rural provinces of the time. Adapted from LOUIS I. DUBLIN *and* ALFRED J. LOTKA, THE LENGTH OF LIFE, *p. 36 (New York: Ronald Press, 1936). 1939–41 figures from* STATISTICAL BULLETIN *of the Metropolitan Life Insurance Co., vol. 24, no. 4, April, 1943, p. 6.*

[1] RECENT SOCIAL TRENDS (New York: McGraw-Hill Book Company, 1933), p. 605.

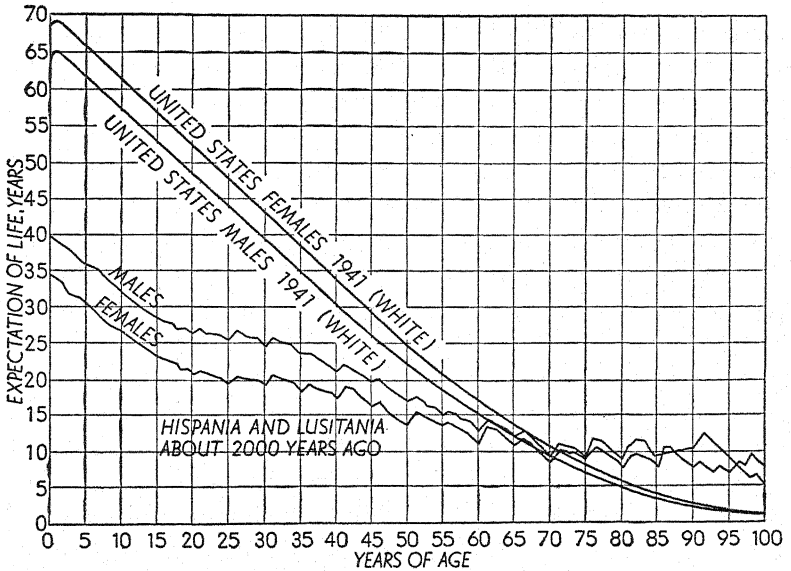


FIGURE 82. EXPECTATION OF LIFE IN THE UNITED STATES TODAY AND IN THE ROMAN PROVINCES 2000 YEARS AGO

The old people seem to have lived longer then than now, but the death rate of infants was very much higher. Adapted from W. R. MACDONNELL, "ON THE EXPECTATION OF LIFE IN ANCIENT ROME AND IN THE PROVINCES OF HISPANIA AND LUSITANIA, AND AFRICA," BIOMETRIKA, *9:373, 1913.* DUBLIN *and* LOTKA, THE LENGTH OF LIFE, *p. 38 (New York: Ronald Press, 1936). 1939–41 figures from* STATISTICAL BULLETIN *of the Metropolitan Life Insurance Co., vol. 24, no. 4, April, 1943, p. 6.*

expectancy of life is approaching the well-known allotted span of three score and ten.

Will the expectancy of life in the United States, which was 64 years in 1941, increase to 70 years or longer? Certainly the increase in the future will be slower than it has been in the past two or three decades. In the middle ages the expectancy of life in Breslau, in 1690, was 33.5 years, according to the approximate computations of Halley.[1] The early life tables are crude, but they do give some indication of the conditions of life and death in earlier times. For still earlier years, about 2000 years ago, there exist some data on the mummy cases of Roman Egypt. Karl Pearson worked over these more or less imperfect data, which did not give the age distribution, and calculated an expectation of life of between 25 and 30 years at birth.[2] For the ancient city of Rome, Macdonnell [3]

[1] LOUIS I. DUBLIN and ALFRED T. LOTKA, LENGTH OF LIFE, p. 43.

[2] KARL PEARSON, "ON THE CHANGE IN THE EXPECTANCY OF LIFE IN MAN DURING A PERIOD CIRCA 2000 YEARS," BIOMETRIKA, 1:263, 1901–02.

[3] W. R. MACDONNELL, "ON THE EXPECTATION OF LIFE IN ANCIENT ROME, AND IN THE PROVINCES OF HISPANIA AND LUSITANIA, AND AFRICA," BIOMETRIKA, 9:370, 1913.

estimates an expectation of life, at birth, of only about 20 years. It must have been a very unhealthful place. In the provinces of Hispania and Lusitania the expectation of life was about 35 years. They seemed to be much healthier places than Rome itself. In Figures 81 and 82 the expectancy of life at different ages for the United States today for ancient Rome and for the provinces of Hispania and Lusitania about 2000 years ago are shown. After the age of 60 or 65, the ancients lived longer than do the moderns.

The expectancy of life in different states. The expectation of life in different states in the United States in 1929–31 is shown in Table 22, the states being ranked from highest to lowest. The expectancy for males and females has been averaged. In general the urban states had a shorter mean length of life than the rural states. New York state's expectancy was 59.8 years, while that of Kansas was 64.6. A person lives longer on the farm than in the city, despite the lack of sanitation, public health services, and less adequate medical care. The expectancy of life was 61.6 for white males in 1940 in cities of 100,000 and over

TABLE 22. EXPECTATION OF LIFE AT BIRTH IN EACH OF THE UNITED STATES, EXCEPTING TEXAS, 1929–31 *

State	Expectation at Birth Years †	State	Expectation at Birth Years
South Dakota ‡	65.6	*United States = average*	61.1
Kansas	64.7	Utah	61.0
North Dakota	64.6	Massachusetts	60.9
Iowa	64.5	Illinois	60.9
Nebraska	64.4	Georgia	60.8
Oklahoma	64.1	Louisiana	60.7
Minnesota	63.6	Alabama	60.6
Washington	63.4	Virginia	60.6
Oregon	63.3	Kentucky	60.5
Wisconsin	63.1	New Jersey	60.3
Idaho	63.1	Tennessee	60.3
Arkansas	62.0	Maine	60.3
Mississippi	61.8	North Carolina	60.2
Montana	61.8	Delaware	60.2
Connecticut	61.7	New York	59.8
Wyoming	61.6	West Virginia	59.7
Missouri	61.6	Rhode Island	59.7
New Hampshire	61.4	Maryland	59.6
Indiana	61.4	Pennsylvania	59.5
Vermont	61.4	South Carolina	59.5
Ohio	61.4	Nevada	59.5
Michigan	61.3	Colorado	57.5
Florida	61.3	Arizona	51.6
California	61.1	New Mexico	50.8

* Adapted from LOUIS I. DUBLIN and ALFRED J. LOTKA, LENGTH OF LIFE, p. 87.
† Mexican included with whites.
‡ Based on deaths for 1930 only.

and 64.1 years for rural territory in the United States. The figures for white females were 66.3 and 67.5 respectively.

THE NATURAL INCREASE IN POPULATION

Both the birth rate and the death rate in the Western World have been decreasing, and the rate which decreased most determined the change in rate of growth of the population, not counting migration. In England and Wales, for instance, for the 25 years from 1890 to the World War, though the birth rate declined 5.7 per thousand, the total population remained about the same. The natural increase (the difference between the birth rate and death rate) remained 11 or 12 per thousand. The reason was, of course, that the death rate had also decreased by about the same amount. The early decrease of the birth rate was not accompanied by a corresponding decrease in the growth of the population.

But in more recent decades the birth rate has fallen more rapidly than the death rate; hence the natural increase is slowing up. In the United States since 1920–21 the birth rate has fallen eight per thousand, until the abnormal war years, whereas the death rate has fallen only one per thousand. Thus the inflow and outflow of population in the United States are changing so that population is growing less rapidly. However, during the early war years and the years of preparation therefor, the marriage rate and hence the birth rate rose very greatly. It is quite probable that the birth rate will continue to decrease after the disturbance of the war is over, while it is almost certain that the death rate will rise. The death rate will not fall for the whole population because the people as a whole are getting older and there will be more deaths, though the specific death rates for each year of life, except a few older years, are likely to decrease.

Figure 83 gives a comparison of the age composition of the population in 1930 and what it is expected to be in 1980. The death rate will rise then simply because the age distribution is changing. On the other hand, the length of life will increase. The death rate in the United States, which is now 10.7 per thousand, is likely to rise to 15 or 16, which is about what the birth rate is now. If, however, the birth rate falls still further, then the outflow of population will be greater than the inflow, and the population will decrease. These conditions are not confined to the United States alone, but are characteristic also of northwestern Europe. There the fall of the death rate is slackening much more than the birth rate. The trend in the death rate is due to the spread of scientific discoveries in medicine and sanitation, while the trend in the birth rate is due to the spread of scientific discoveries regarding the limitation of family size.

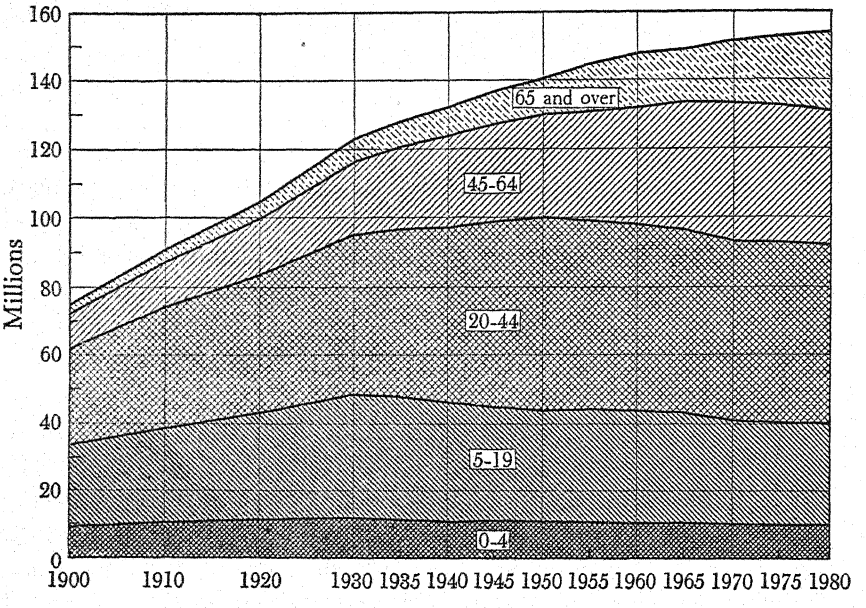


FIGURE 83. CHANGES IN THE AGE COMPOSITION OF THE POPULATION OF THE UNITED STATES, 1900–1980

This chart assumes medium fertility, medium mortality and no immigration in its predictions. (*For further discussion see* PROBLEMS OF A CHANGING POPULATION.) *The increase in the aged is very striking, while the actual numbers under five years of age remain almost the same. The working population has a smaller per cent of children to support and a larger per cent of old people. From* PROBLEMS OF A CHANGING POPULATION (*Washington: National Resources Committee, Government Printing Office, 1938*).

AGE COMPOSITION

The trends of birth and death in the future are of great significance, especially for economic reasons, since they affect the standard of living and also the market for the sale of goods. Any accurate estimate, however, is complicated by what the age distribution of any state or community under discussion may be. Hence it is desirable to examine further how communities vary by age. For instance, when Gary, Indiana, was chosen as the location for the steel plants of the United States Steel Company, the town was soon made up largely of young male workers between the ages of 20 and 40. Many of these had wives of about the same age, or soon married them. For a time there were few children and very few old persons. There were few deaths in Gary in its early days, because most of the population were at the ages when few die.

Such a population of young adults not only has a low death rate, but it also has a high birth rate, since the crude birth rate is based on the total population.

Stable age distribution. Gary, then, was a place that had a large natural increase, because its birth rate was high and its death rate low. But such a condition could not remain for long, for children would be born and the young adults would grow older. Eventually Gary, which began with young adults only, came to have a normal quota of young and old, and the excessive proportion of young adults diminished. If Gary had had no further influx of inhabitants and if migration away from Gary did not occur, eventually the age distribution would not only become more normal, but also it would become stable, if the specific birth and death rates remained the same. The proportions of children, young adults, and elders would not change from decade to decade. A stable age distribution is one in which the proportions of the population in the different age groups remain the same. When Gary's age distribution became more normal and nearer a stable age distribution, the birth rate *ipso facto* became lower and the death rate automatically was raised. This change would have been true even if the birth and death rates at each age group had remained the same.

The true rate of increase. When the age distribution of a community is stable, its natural increase, that is, the excess of births over deaths (or vice versa), is called the true rate of increase. When figured not as a yearly rate, but on the basis of the replacement within a generation, the figure is called the net reproduction rate. A rate of 100 means that the population will just replace itself within a generation. Gary had a high rate of growth, that is, a large natural increase, when it was young because the birth rate was large and the death rate was small. But its true rate of increase was much smaller. It was not necessary to wait until Gary's age distribution became stable to determine this. The form its age distribution will take when it becomes stable can be computed in advance. Taking the population in one year, say 1900, the population for 1901 and its age distribution can be computed by adding the number of births (that will occur with the birth rates by age of mother) and subtracting the number of deaths at each age (that will occur with the death rates for each age period). From the age distribution of 1901, the age distribution for 1902 can be computed. So also the age distribution for 1903 can be figured. No emigration or immigration is assumed to occur. Eventually after enough computations, usually 40 or 50, the pro-

portion of the population at each year of age has been found not to change from year to year, as would be expected from the reasoning in a preceding paragraph regarding the population of Gary, Indiana.

Factors changing age distribution. The age composition of a community becomes disturbed by reason of four influences: changes in immigration, emigration, births, and deaths. Monroe, Louisiana, was a city that grew 100 per cent from 1920 to 1930, largely because of immigration of young people. Figure 84, which gives the age distribution of Monroe, shows a large proportion of young adults. The rate of natural increase of Monroe would be higher than its net reproduction rate. On the other hand, the village of Troy, Pennsylvania, lost population to the extent of 30 per cent, between 1920 and 1930. It was the young adults that moved away. Hence its age distribution shows a very low percentage of young people. Its natural increase would be lower than its true rate of increase.

The decreasing birth rate also changes the age distribution because, with fewer births, there is soon a smaller percentage of children and automatically a larger percentage of young adults. Such is the situation when the birth rate first begins to fall. The countries of western Europe

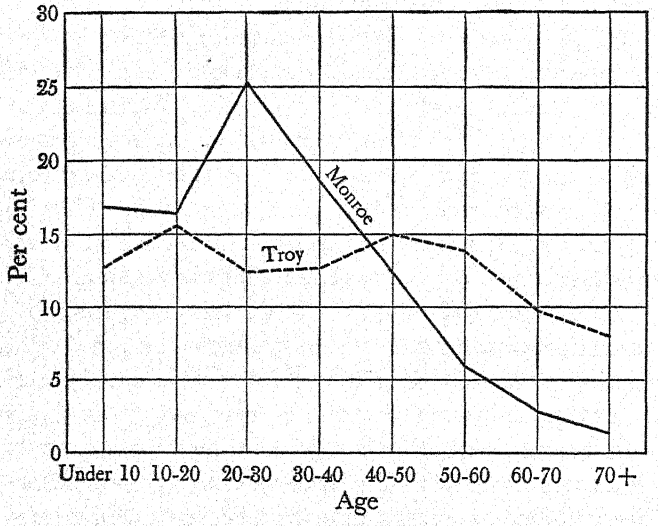


FIGURE 84. AGE DIFFERENCES IN TWO TOWNS

Troy, Pennsylvania, is like many towns from which the young adults have migrated, and in which the old people have stayed at home. Monroe, Louisiana, is typical of towns that are recipients of migrating young adults, which makes for a lower per cent of old people. The conditions in Troy favor a high death rate and a low birth rate, while the opposite is true of Monroe.

all have an unusually large proportion of young adults because of a decrease in the birth rate.

The influence of changes in the death rate on the age composition has been the opposite of that occasioned by changes in the birth rate. The reduction in the death rate has been the greatest for infants. Hence lives of infants are saved, which has the same effect as increasing the birth rate. But, practically, the drop in the birth rate has been greater than the decrease in infant mortality. Hence the influence of the falling birth rate has overshadowed that of the death rate.

NET REPRODUCTION RATES

Nearly all the countries with immigration and a recent increase in the use of birth control methods have a large proportion of young adults. Often these are countries with a recent rapid spread of technology. Such an age distribution favors a high birth rate and a low death rate.

Natural and true rates of increase in the United States. In the United States the age distribution is favorable for a high birth rate and a low death rate, because of the immigration which occurred in the nineteen-twenties and of the birth rate which has declined very rapidly since 1920. The population of the United States grew during the nineteen-thirties at the rate of about 800,000 a year (that is, the excess of births over deaths, the net immigration being small). This is an average annual rate of natural increase of .006, or six tenths of a per cent a year, or 6 per thousand population, which is the difference between the birth rate of 17, and the death rate of 11 per thousand. During the war years of the 1940's, the rate of increase was greater, for the birth rate was much higher. In 1942 the birth rate was 21.0 and the death rate 10.4.

Actually, however, the net reproduction rate in 1936 was .947,[1] a decrease of 53 per thousand in a generation. In other words, while the United States was actually gaining population by 800,000 a year, if its age distribution had been stable and the swell in the proportion of young adults due to migration and a low birth rate had been removed, there would actually have been a loss of 234,000 [2] in 1936. In other words, the birth rate by ages of mother in the United States is so low, in comparison with the death rate, that the United States would be losing population each year, instead of gaining, if there were not an excess of

[1] POPULATION INDEX, 5:139, April, 1939.

[2] A generation was reckoned as 28 years.

mothers of child-bearing age, and a shortage of old people, a disproportion that is not likely to be maintained. But in 1940, when the birth rate was high because of the business boom, the net reproduction rate was 1.024 or an increase of 24 per 1000 in a generation.

This excess of women at child-bearing ages in the United States is shown in Figure 85. This figure shows the actual age distribution of the white female population and also what the age distribution will be when it is stable. The shaded areas show the excess of women of child-bearing age. This shaded area, rather than the specific birth rates, accounts for the fact that the population of the United States is growing. If it were not for such a large shaded area, the population would be decreasing.

Figure 85 shows also why the death rate in the United States will rise. The present population has a higher percentage of people from the ages 5 to 40, which are the ages of low specific death rates, than it will when the age distribution becomes stable. On the other hand, the right-hand portion of Figure 85 shows that the proportion of the population over 40

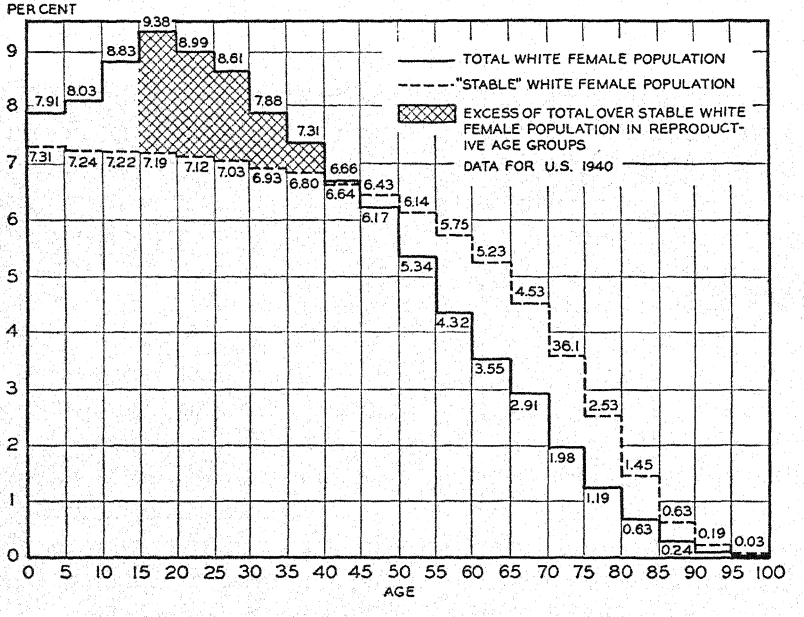


FIGURE 85. THE EXCESS OF FEMALE POPULATION IN THE CHILD-BEARING AGES, 1940

The heavy black line shows the age distribution of the present female population and the broken line shows the age distribution in the future if the present birth and death rates continue and there is no immigration. The condition indicated above is one that is favorable to a high birth rate, and if conditions move toward that indicated by the broken line the birth rate is expected to fall. (The present age distribution also favors a low death rate.)

years of age will increase as the age distribution becomes stable. The ages beyond 40 are the ages of high death rates.

In the United States, then, in 1940 the natural increase was 7 per thousand, but the true rate of increase, that is, the rate when the age distribution is stable, is +0.8 per thousand. When the true rate of increase is figured on the basis of the increase per generation, which is 28 years, it is called the net reproduction rate. Thus for the United States the net reproduction rate was 1.024 in 1940, an increase of 24 per thousand in a generation of 28 years, an increase of 0.8 per thousand in one year.

Net reproduction rates in various countries. In Table 23 are given the rates of natural increase and the net reproduction rates for several countries in 1940.

TABLE 23. RATES OF NATURAL INCREASE AND NET REPRODUCTION RATES, FOR VARIOUS COUNTRIES, ABOUT 1940 *

Country	Rate of Natural Increase	Net Reproduction Rate
France	−4.9	.900
Sweden	3.6	.794
England and Wales	0.3	.815
Germany	7.3	.976
Hungary	5.5	1.000
Italy	9.8	1.130
Bulgaria	8.8	1.192
Poland	10.7	1.114
Portugal	8.8	1.290
United States	7.1	1.024
Canada	11.7	1.094
Australia	8.3	1.004
New Zealand (European only)	12.9	1.195
Japan	12.8	1.440

* Data taken from STATISTICAL YEAR-BOOK OF THE LEAGUE OF NATIONS, 1941/42, pp. 36–39, 50–51.

Table 23 shows that if it were not for favorable age distributions, the countries of northwestern Europe would be losing population, migration not being considered. These facts, which are highly important for statesmen, would not be known if it were not for the invention of the measure of net reproduction rates.

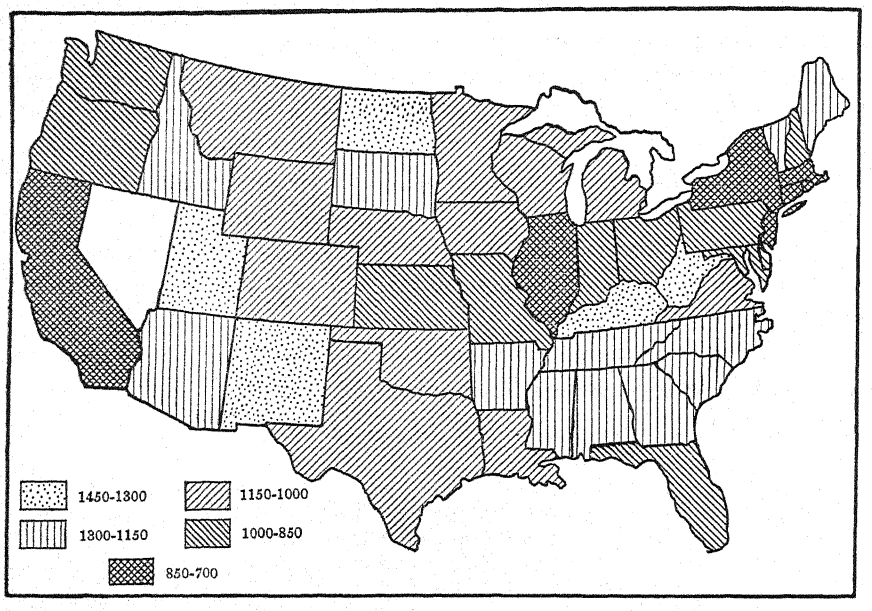


FIGURE 86. NET REPRODUCTION RATES BY STATES
1935–1940

The birth rate exceeds the death rate in many states solely because there are more than the normal proportion of women of child-bearing ages and an excess of young adults who have a low death rate. If the age distribution was not thus distorted, there would be fewer births and more deaths and fewer states would be increasing in population because of an excess of births over deaths.

In the United States net reproduction rates below 1000 are not found in every state of the Union. The states in the South and the Middle West had high net reproduction rates. Some of the states with high net reproduction rates (white) are New Mexico, Kentucky, West Virginia, North Dakota, Utah, Alabama, and Arkansas. At the other extreme are New York, New Jersey, Connecticut, Rhode Island, and Massachusetts.

GROWTH OF COMMUNITIES OF DIFFERENT SIZES

The world has seldom seen such a phenomenal growth record as that of the United States. It grew from 3,000,000 to 130,000,000 in population in a hundred and fifty years, or at the rate of .027 per year. Most

of the countries of Europe that grew rapidly during the nineteenth century required a hundred years to double, which is a rate of .007 a year. These are not natural increases, merely rates of actual increase, for migration is included. Java, under the rule of the Dutch, has also had a remarkable growth.[1] It grew from four to forty million in a century and a quarter. Such a growth in a little more than a hundred years means a rate of growth of .019 per year. The growth of the United States, which at times was greater than 3 per cent a year, is now slowing up appreciably. Between 1930 and 1940 the rate of growth has been .006 per year.

Not all parts of the United States grew at the same rate. The first settlements grew slowly for a time, then rapidly, and finally experienced a gradual slowing up. Such was the case with the Atlantic seaboard states, then with the regions between the Alleghenies and the Mississippi. The Pacific coast states are probably not yet in the late phase of this cycle of growth.

RURAL AND URBAN GROWTH

The rural communities have grown at the slowest rate, at an average of .016 per year from 1820 to 1930. The growth has been particularly slow since 1890, when the mechanization of industry was in full swing. Indeed the farm population, as contrasted with that of all other rural places including villages under 2500, did not grow appreciably from 1910 to 1930. On the other hand, the big cities of over 100,000 have had the most remarkable growth. Their increase at .033 per cent a year, during the period 1820–1930, was, of course, faster than that of the nation as a whole. The towns and middle-sized cities have had a somewhat slower rate of increase.

There is a good deal of interest in how the different communities have been growing in very recent decades. The belief is current that the big cities are too big, not only for comfort and the enjoyment of life, but also for economic reasons. Hence it is argued that the big cities will grow less rapidly during the next few decades than will the cities of smaller size. New York and Chicago grew at the rate of 25 per cent between 1920 and 1930, which was a greater rate of growth than that for cities from one quarter to a half million, or from one half to a million population. However, from 1930 to 1940 New York City increased only 8 per cent and Chicago but .6 of one per cent. It will be seen, from Figure 87, that the

[1] WARREN S. THOMPSON, POPULATION PROBLEMS, p. 251.

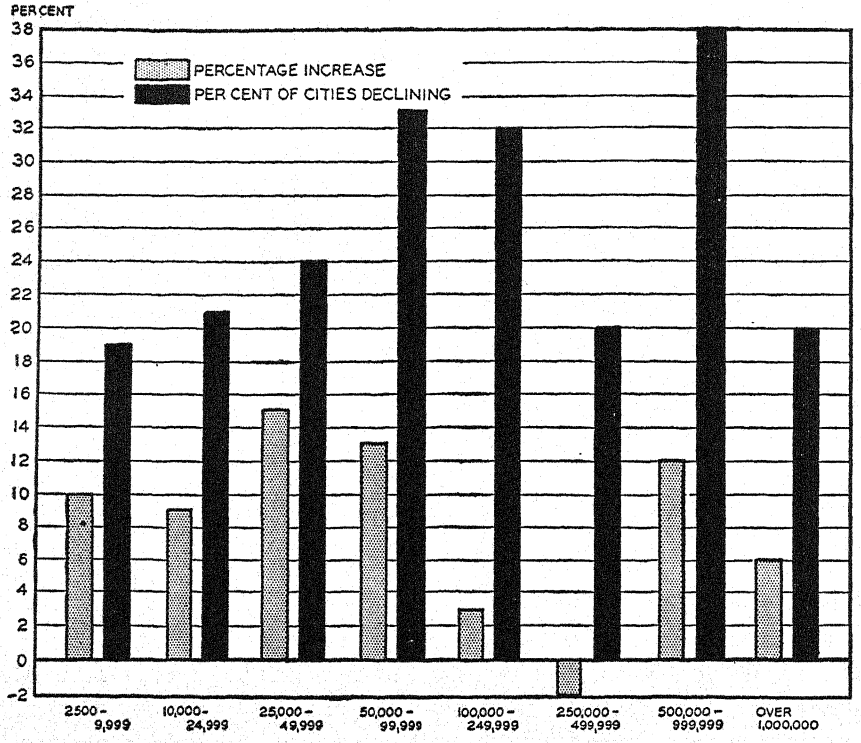


FIGURE 87. GROWTH OF URBAN POPULATION AND OF CITIES BY SIZE, 1930–1940

The growths of urban populations were much less from 1930 to 1940 than for the prior decade. The shaded bars in the above chart show the percentage rate of growth for urban populations when cities are classified by size. Likewise the numbers of cities declining, as shown by the black bars, are greater in the past decade than from 1920 to 1930. The growth was less for the large cities than for the small ones. If a large city were defined by its economic boundary line instead of its political, many suburbs would often be included. The economic city has probably grown much more than the political city since the rate of growth of suburbs is much greater than that of the central city.

smaller cities, those under 100,000 grew slightly faster than did those over 100,000. Of the 92 cities containing 100,000 or more inhabitants in 1940, 29, or 32 per cent, declined in population. Twenty-four per cent of the cities between 25,000 and 100,000 lost population, and 24 per cent of the cities of 10,000 to 25,000 lost population.[1]

The percentages of the total population living in the various sizes of cities remained almost stable between 1930 and 1940, no category changing by as much as one per cent.

[1] Philip M. Hauser, "HOW DECLINING URBAN GROWTH AFFECTS CITY ACTIVITIES," PUBLIC MANAGEMENT, Dec. 1940, p. 355.

The small cities which grew the fastest are those near a large city. The preference as to a place to live seems to be in favor of the small places located near big cities. This preference may be due to the economic advantages accruing to factories so located, or it may be due to the pleasantness of life for those who work in cities and live outside.

NET REPRODUCTION RATES FOR COMMUNITIES OF DIFFERENT SIZES

The growth of the various types of communities in the United States during the past hundred years reveals a story of optimism fulfilled. There was a continent to be filled; fertile lands were waiting to be tilled. Great cities were to be built, bringing prosperity to region after region. But an examination of the data shows that the rate of growth of all types of communities is slackening.

The net reproduction rates for communities of different sizes show that the urban places are not reproducing themselves. In fact, 100 urban female babies will leave behind them when they die only 73 female babies, if conditions of birth, marriage and death remain as they were in 1935–40.[1] This means that in a generation (twenty-eight years) the population would decline about 27 per cent.

On the other hand, in the rural farm population 100 female babies will be replaced by 166, and in villages and hamlets by 115. These net reproduction rates say little about what the actual rates of growth are. In fact, the cities have been growing faster than the farms. But their growth has been due, not to the birth rate, but to migration from farms and villages. The farms and villages are the producers of population; the cities are the consumers. The net reproduction rates are lower for the larger cities. Towns from 2500 to 25,000 had in 1930 a net reproduction rate of 94.[2] Places from 25,000 to 50,000 population had a net reproduction rate of 89, for cities from 50,000 to 100,000 it was 83, and for places over 100,000 it was 73. Cities of over 100,000, in which nearly a third of the population live, have a natural decrease of over 25 per cent in a generation. Actually, however, cities of this size are growing very rapidly, due to migration. In 1935–40 cities of over 250,000 in population had an average net reproduction rate of 67.

[1] SIXTEENTH CENSUS: Differential Fertility, 1940 and 1910.

[2] BARNARD D. KARPINOS, "THE DIFFERENTIAL TRUE RATES OF GROWTH OF THE WHITE POPULATION IN THE UNITED STATES AND THEIR PROBABLE EFFECTS ON THE GENERAL GROWTH OF POPULATION," AMERICAN JOURNAL OF SOCIOLOGY, 44:261, September, 1938.

Decreasing Growth of Population

Slowing up of population growth in the United States

The invention of the steam engine stimulated population growth, as did the invention of the hoe and the domestication of cattle in bygone eras. But now the impetus given to population growth by the Industrial Revolution seems to be slackening, or is being counteracted. The evidence is quite clear in the case of northwestern Europe and the United States, for these countries will very soon have decreasing populations unless heroic measures are taken to stimulate population growth. The dissipating of the impetus to population increase given by the use of mechanical power may be due to the spread of the knowledge regarding family limitation. The power age is spreading to China, India, and Russia. Will it increase the population, or will this impetus be counteracted? These are important questions, though their answers are not known as yet.

Estimates of the probable population in the United States in the next half century have been made. Figure 88 shows the course of population growth in the past by a continuous black line. The population predicted in 1938 for 1940 and succeeding decades is shown by the line of dashes. There are three of these dash lines. One estimate is based upon an expectation of little decrease in the birth rate, some immigration, and rather marked increase in the expectation of life. The other extreme assumption yields the line showing the lowest population, and the middle line is based on a median assumption. According to any of these assumptions, however, the population of the United States will decrease unless something is done about it, in a few decades; possibly by 1960 and certainly by the beginning of the twenty-first century. The trends are even more definite in northwestern Europe.

If the populations do decrease it will be a reversal of a historical process that has been in operation for centuries. In the United States, in particular, the tradition has been one of population expansion. Each decade has brought reports of greater and still greater increases. The tempo of business and economic life has been set by the rate of expansion. This fact has been particularly true of the big cities, which seem to have sprung up and flourished almost overnight. The cities may continue to grow, of course, by migration, even though the population for the nation decreases. But the force decreasing the population for the nation will be felt by the cities too.

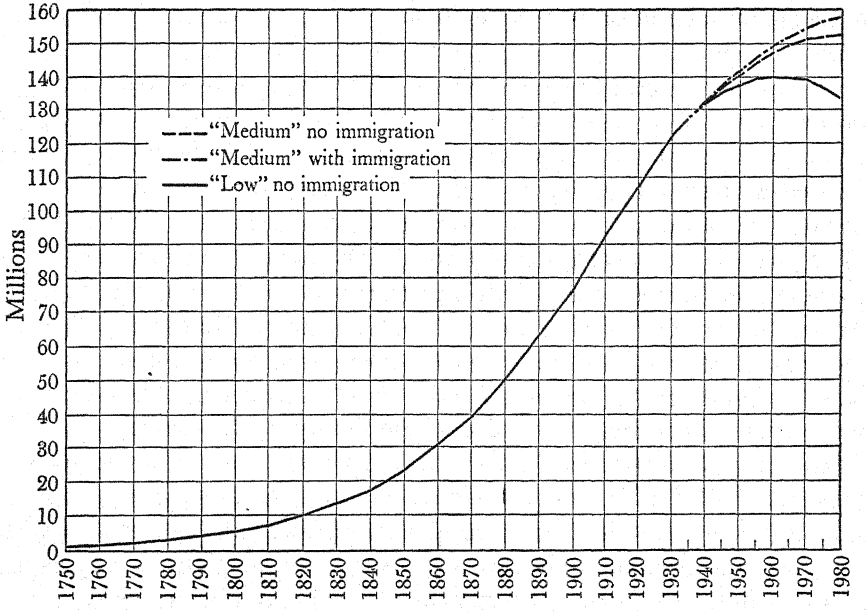


FIGURE 88. THE GROWTH OF FUTURE POPULATION OF THE UNITED STATES

The rate of growth of the population of the United States is slowing up. The chart shows three predictions. ("Medium" and "low" refer to fertility rates. Both have been combined with "medium" mortality. For further explanation see PROBLEMS OF A CHANGING POPULATION.) *From* PROBLEMS OF A CHANGING POPULATION, *p. 24 (Washington, D.C.: National Resources Committee, Government Printing Office, 1938).*

ATTITUDES TOWARD DECREASING POPULATION

The news of a probable decreasing population will not be good news to most of the population. The nationalists who want national power and glory accompanied by military strength as measured by man power will be displeased. Also many of those who have goods to sell will fear a diminishing market, which will occur unless wages and salaries are raised commensurately with the rate of population decrease. The sellers and manufacturers are an important class with an influential voice in the decision of problems of state. The real estate owners who have been accustomed to increases in rents due to the pressure of population on land, will also look with disfavor on population decreases. Those who rent houses and land, though, may acquire them at lower costs than they could if the population were much larger. In short, the possibility of a

decrease in population is likely to arouse quite generally a dissatisfaction with the trend.

Efforts to combat population decrease. For this reason it seems probable that efforts will be made to stop the decrease. This may be done by allowing immigration or by raising the birth rate. For the present in the United States the hostility toward further immigration, especially during periods of unemployment, is strong. But the situation may change. What is done may turn on the quality of the population that is allowed to enter. As to raising the birth rate, the most usual method of attack is for the state to pay a bonus for each birth, as was done in some cases in Germany. Money was loaned to a couple contemplating marrying, and a reduction in the debt made for each birth. Another method is to have wages paid according to the size of the family of the employee. This method has been tried in France. In the United States, the income tax rate on a bachelor, or a childless married couple, is larger than that for a married man with children to support. Mothers may be treated with unusual consideration, as in Sweden. Such national policies may be instituted, but the economic assistance will probably have to be considerable to reverse the birth rate trend, which up to the present has shown little or no tendency to change. One important difficulty has been that most such efforts to raise the birth rate cost the taxpayers money.

But whether effective or not, it seems extremely probable that in the United States a very great effort will be made to keep the population from decreasing, and indeed also to increase it. Editorials and magazine articles will be written in an effort to have more children produced. Oratory in the legislatures may be expected. There will probably be agitation to allow more immigration into the United States. It would be much easier to get more population by immigration than by increasing the birth rate, judging from the experience of France, where both methods have been tried. Indeed it is possible that the present hostility in the United States toward immigration will be reversed. It is also quite possible that the efforts to increase the birth rate may not be very effective and that immigration will not be permitted if there is unemployment. In any case there is enough probability that the population of the United States will decrease in the future to justify some discussion of its social effects. The slowing up of the rate of growth which is already occurring has some resemblance to an actual decrease in population. For if Portland, Oregon has been doubling its population each decade and then in a succeeding decade the growth is only a third, the effect is somewhat like

that of a decline. Business is geared to an expanding market. The values of real estate are capitalized on future expected gains, which are based upon past trends. The habit of expansion determines the layout of a plant and the purchases for next year's market. It is desirable, then, to discuss the social consequences of a slackening of population growth and of a decrease in population.

ECONOMIC EFFECTS OF A DECREASING POPULATION

The effects of a decreasing population may be discussed, but not with great precision because in modern times there have been few states that have experienced a decrease of population. There are many towns and cities that have lost population, but the effects have not been adequately studied. The apparent effects may be due to a lack of economic opportunity as well as to a population change. Since a decline in business is, in the cities, accompanied by a loss of population, it is not easy to disentangle the two.

Effect on business optimism. One possible effect of a decrease in population is a diminution of optimism. Certainly the expansion of population in the United States has been accompanied by an almost unbounded faith. Thus in decades prior to the last one, the buoyancy and optimism of the new and growing western states of the Union have been much commented upon by historians [1] and felt by those who lived in that region. If a man owns real estate in a city that is doubling its population every ten years, why should he not feel optimistic, for his land will go up in value with no effort on his part. Noticeable is the relative ease with which bankruptcy or the failure of a business enterprise is taken in a rapidly growing section. It is merely an opportunity to start in something better which will succeed. By contrast, bankruptcy in a state with a stationary population, like that of France, is a tragedy of considerable magnitude. This optimism leads to a certain daring and willingness to experiment. At least the western part of the United States is a region where many social experiments are tried.

Cities that have decreasing populations have a diminishing tax base, for total land values are falling as is also the total personal property. Provision for new parks, new schools or other governmental ventures is not so likely to be possible. A decreasing city is not one into which a business looking for profits in the local market is likely to move. Vienna

[1] JAMES BRYCE, THE AMERICAN COMMONWEALTH (New York: The Macmillan Company, 1910), chap. CXXI.

after World War I lost 200,000 population. It was not a gay city then.

In these observations, the change in population is the result of economic forces and it may be the economic condition, rather than the declining population, that accounts for the lack of optimism. But the quantity of population and business conditions are quite inextricably bound, as will be seen in the paragraphs which follow.

Possible depressing influence upon business. In the increase of population of cities, the cause is generally migration. Migration was also a cause of the rapid building up of the West. If, however, in the future the population should decrease because of a falling birth rate, rather than a disappearance of business opportunity, would a recession of optimism occur? If the low birth rate forces a decrease in population, the businessman will see it as a loss of customers. If he is losing customers, the occasion is not auspicious for making profits. If he does not produce as much because there are fewer customers, he will not purchase as much material. Furthermore, he may not need as much labor. If less labor is used there may be a following period of unemployment, and possibly lowered wages. Such a succession of steps might well occur if the decrease of population were rapid. But any decrease in population by the route of the birth rate is likely to be rather slow. It might be rapid enough to affect industries whose goods are consumed by babies and little children, as for instance milk. Before the population changes, if it does, it must first become stationary and before that there will be a slackening of the rate of growth. Hence businessmen will have time to prepare for the future conditions of population. They may thus avert crises and disasters, but it may still not be a situation that will generate any great amount of optimism regarding profits.

That unemployment will result is not certain. It would appear, if the population was decreasing, that there would be fewer workers and hence no unemployment. But when the population decreases through the birth rate, the loss in numbers is first in babies and young children, and not in wage earners. Relatively there are more laborers, and fewer customers.

It should be observed at this point that the discussion concerns the change in the quantity of the population, not the quantity itself. A business may prosper just as well with a small population as with a larger one. But it may have great difficulty in adjusting to a population as it becomes smaller, just as it found it easy to adjust to an expanding population.

Malthus may have been justified in his optimism about a small popula-

tion, yet he might well have been dismal about the period when a population was becoming smaller.

Relative effects on goods with elastic and inelastic demands. The discussion has so far concerned business in general. The situation will be different in different businesses. Some producers make a product which everyone must have and the consumption of which does not vary much with a single individual. Salt is such a commodity, in so far as its use in industry is not considered. Everyone eats salt, and the daily consumption per person does not vary much. The demand for salt is said to be inelastic. The demand for many agricultural foodstuffs is relatively inelastic. A decreasing population is to be feared especially by the producers of inelastic goods.

On the other hand, the consumption of fur coats is highly elastic as is attendance at the movies. Manufactured luxury goods are of this type. Producers of goods with elastic demands are accustomed to having the volume of consumption of their goods fluctuate widely with the business variations from prosperity to depression. For the producers of this type of goods, mere number is no measure of purchasing power. For those who sell goods with an elastic demand, if the population decreases 10 per cent but income rises 20 per cent, the net effect is the same as if the number of consumers had increased without an increase in per capita income. If the total income of consumers can be raised, even though the number decreases, the depressing influence of such a diminution may be offset. Thus the sellers of goods for which there is an elastic demand who advertise in the *Saturday Evening Post* and similar magazines may not suffer very much from a smaller quantity of population, if the total income can be raised. The sellers of inelastic necessities would not be helped much by such an eventuality.

The conclusion, then, on the possible effect of a decreasing population on business is that it will make difficulties. But there are ways of dealing with the problem. One such method is to offset the population movement by attempts to raise the total income and hence the total purchasing power. The question of how to raise the total income cannot be considered here. But a much higher income is a possibility, especially as a result of a greater number of inventions.

SOCIAL EFFECTS OF A SLOWING-UP OF POPULATION GROWTH

War. Passing from the economic effects of a decrease in population, the question occurs as to what effect it may have on war. The ques-

tion naturally arises because many nations claim that they are driven to conquer new territories in order to find room for their ever-increasing populations. If this be true, then one cause of war may be removed. If it is not true, but merely a rationalization, then an excuse for warlike maneuvers is removed. The situation is complicated by the fact that the populations will not be decreasing at the same rate in all nations. It looks as though the population of Germany and the states to the northwest might be decreasing, while Russia's may be increasing. Such differentials may be an incentive to warlike aggressions on the part of the nations with increasing populations. There are other factors in war than population, however, such as munitions and credit, but the changing rate of population growth will not be without effect upon policies of war.

Age distribution. The slowing up of population growth in the United States will be accomplished by an unequal reduction of age groups. The young will become a smaller and smaller proportion of the population because the reduction of growth is by the birth rate, rather than by migration. How the various age groups are affected by population changes is shown in Figure 89. The data beyond 1930 were projected upon extensions of age groups by applying the death and birth rates prevailing at that time. America has been called a young nation, and its people were young. At the time of the War Between the States half the population was under 20 years of age. Youth is thought of as the age of optimism and daring. The larger percentage of youth was thus a factor in producing the buoyant spirit of the time. By 1980, only one quarter to one fifth (21 to 26 per cent) of the population will be under 20 years.[1] The spirit of youth will not be so much in evidence. By that time also only 1 in 20 persons will be a child under five years of age. There is an adage that children should be seen and not heard. They will be little seen or heard during the next half-century.

The scarcity of children. Many interesting consequences are likely to flow from the scarcity of children. They will probably be very much appreciated. Consideration will be given them in building play space, guarding them from traffic, in providing nurseries for them in department stores. They will be much admired as actors on the screen. There will be fewer to educate. In 1850, 100 of the working population, men and women, 20 to 65 years of age, had 112 children under 20 years of age to support and educate. But by 1980 estimations show that 100 adults of working age will have only 44 youths under 20 to educate. They should, therefore, be able to give them a better education.

[1] WARREN S. THOMPSON, POPULATION PROBLEMS, 1942, p. 288.

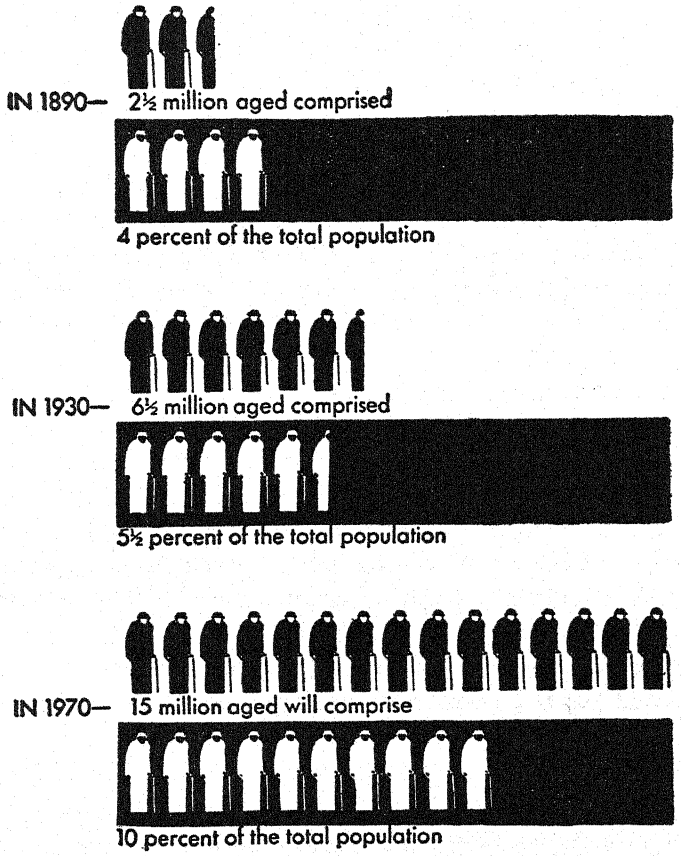


FIGURE 89. THE REMARKABLE INCREASE IN THE NUMBER OF OLD PEOPLE (65 YEARS OF AGE AND OVER) IN THE UNITED STATES

By 1970 very probably more than one half of the voters will be over 45 years of age and each 100 of the working population will have to carry about 45 persons over 65 years of age, assuming that the old people have not saved enough money to support themselves. Politics may become more conservative and pressure for old-age pensions may become greater. Source: Committee on Economic Security. Prepared by the Informational Service, Social Security Board, Washington, D.C.

The increase of elders. The changing growth of the population not only means a reduction of youth, but also an increase of elders. The increase is quite impressive, for the proportion of old people over 65 years of age in 1980 will be two and a half times that in 1940. This increase in the percentage of old people will emphasize the note of conservatism in American life, for elders are generally more cautious than the young. They have done their experimenting, had their adventure, and perhaps

burned their fingers in the process. Over one half the voters will probably be over 45 years of age by 1980. Perhaps the chances of a radical political party will be less because of the increased age.

It would also seem that the movement to pay the elders $60 a month should be more popular in the future. The question of support of old people will definitely be raised by the nature of the slackening growth of the population in the United States. But since there will be fewer children to support, the effort may be more readily transferred to the old people, provided the elders have surviving children. But with something like one fifth of the marriages infertile, many elders will have no children to support them.

The question will also be raised as to whether industry may not retain workers on the pay roll into the later years. At present, the assembly line is said to lend itself to speeding up work too fast for old workers, and there are many industries where more efficient work is done by men under 50 years of age. Still, it is possible that some types of jobs may be found for elders. These remarks pertain to men; but women over 45 will be one half the elders, and new jobs for women in these age groups are almost unknown. Doubtless many other problems will be presented by the changing growth and composition of the population. Indeed, fluctuations in the nature of population are likely to affect almost every phase of social life.

SUMMARY

This chapter has been concerned with the significance of population changes for social welfare. Malthus some years ago pointed out the danger of growth of population exceeding that of the food supply, with the result of a lowering of the standard of living, and, possibly, of misery. But Malthus did not reckon with the dynamic factor of invention. Contraception has produced a falling birth rate, easing the population pressure, and science applied to agriculture has increased the food supply. Yet Malthus did dramatize the important principle that the standard of living is determined by the relation of the size of the population to its resources.

The invention of contraception, which has made possible a falling birth rate in the principal countries of the world, was diffused first among the prosperous classes and the urban population, and is only gradually being diffused among the poor and the rural element. Further diffusion is expected, however, and a continuing fall in the birth rate for some time to come.

The death rate is falling too, due principally to the saving of lives of infants. The expectancy of life has risen to about double what it was 150 years ago. Owing to the decrease in deaths, the earlier decrease in birth rate was not accompanied by a corresponding decrease in population. But in more recent decades the birth rate has declined more rapidly than the death rate, hence the natural increase of population is slowing up. Indeed in the United States the death rate will increase because of the changing composition of the population, the proportion of older persons becoming greater. Due to the large proportion of young adults in the United States the population has been increasing, but if the age distribution were stable, the true rate of population change would mean a loss. The true rate of increase is thus a more accurate guide to population trends than is the rate of natural increase. The former indicates that the population of the United States will decrease by 1980 unless new measures are undertaken to counteract the trend.

On the whole, a nation is likely to view a declining population with grave concern. This is partly a matter of national pride in large numbers, which are also associated with military strength. A declining population probably portends a generally declining market, especially for

inelastic goods. The question is raised as to whether for elastic goods it may be possible to offset the factor of a contracting market by increasing the purchasing power of the smaller population.

As the age composition of our nation changes, the young will constitute a smaller, and the elders a larger proportion of the population. A pronounced shift in social interests and outlook is indicated. We may anticipate, for instance, increased expenditures for the needs of adults, as for old-age pensions and adult education, and the spread of conservatism.

QUESTIONS FOR DISCUSSION

1. Which is more important in accounting for the number of human beings on the earth at the present time, the biological or the cultural factors? Why?
2. What factors did Malthus overlook in formulating his famous theory? Is his theory essentially sound?
3. If the knowledge of how to limit births were evenly diffused over the population, would the poor have fewer children than the rich?
4. What is the expectation of life at birth in your state? Why is it different from that of other states?
5. Will the expectation of life continue to increase in the future? Are there limits to such increase?
6. Why is the expectation of life for the city boy not so great as that for the country boy?
7. Will the spread of the mechanical power age to China, India and Russia lead to still further increases in these immense populations? Elaborate.
8. What are some of the social consequences of the marked heterogeneity of the American population?
9. What effects of a declining population do you anticipate besides those mentioned in the chapter?
10. Do you think we will be better or worse off with a stationary or declining population than we are now?
11. What steps could be undertaken in the United States to counteract the falling birth rate? Would they succeed?
12. If, in the near future, there are relatively fewer children in the population, what changes in their status will this entail?

TOPICS FOR REPORTS

1. Recent scientific developments affecting the quantity of the food supply.
2. The relation of type of social organization to standard of living in Sweden.
3. A comparative study of the standard of living in New Zealand and India.
4. The present age-composition of your community, and its social significance.
5. A study of the population changes in your community in the last twenty-five years and their social effects.
6. Estimates of the probable population of the world in 1975.
7. The population program of Germany or Italy.
8. Differences in the birth rate, by occupational groups.

SELECTED READINGS

BAKER, O. E., "RURAL AND URBAN DISTRIBUTION OF THE POPULATION IN THE UNITED STATES," ANNALS OF THE AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE, 188:264–80, November, 1936.

The significance of fertility changes in the United States impressively interpreted. The writer emphasizes particularly the problem for the rural population.

DUBLIN, LOUIS I., editor, "THE AMERICAN PEOPLE: STUDIES IN POPULATION," ANNALS OF THE AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE, 188: November, 1936.

The articles in this volume of the ANNALS *bring in a number of fresh points of view and new materials on various phases of the American population question. Like most such collections of essays it is not particularly well systematized, but it presents fresh emphases.*

DUBLIN, LOUIS I., and ALFRED J. LOTKA, LENGTH OF LIFE. New York: Ronald Press, 1936.

This book represents science at its best in the social field, as seen on the firing line. For present purposes the chapters on

the net reproduction rate, the life table, and age distribution are excellent.

KARPINOS, BERNARD D., "THE DIFFERENTIAL TRUE RATES OF GROWTH OF THE WHITE POPULATION IN THE UNITED STATES AND THEIR PROBABLE EFFECTS ON THE GENERAL GROWTH OF POPULATION," AMERICAN JOURNAL OF SOCIOLOGY, 44:251–74, September, 1938.

This article contains the net reproduction rates for cities of various sizes and for farms and villages. It shows some astounding differences which are not shown in the ordinary birth rates.

KUCZYNSKI, ROBERT R., THE BALANCE OF BIRTHS AND DEATHS. New York: The Macmillan Company, 1928.

One of the earliest books to study fully the basic ideas behind net reproduction rates. Tells the story without much reference to mathematics.

LORIMER, FRANK, and FREDERICK OSBORN, DYNAMICS OF POPULATION. New York: The Macmillan Company, 1934.

The standard book on rates of growth by social classes and various other groups.

MALTHUS, T. R., AN ESSAY ON THE PRINCIPLE OF POPULATION. New York: The Macmillan Company, 1909.

This famous essay, from which nearly all studies of population take off, is still unsurpassed in dramatizing the problem of the relation of the standard of living and the size of population.

NOTESTEIN, FRANK W., "CLASS DIFFERENCES IN FERTILITY," ANNALS OF THE AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE, 188:26–36, November, 1936.

The author computes fertility rates by different occupational classes on the basis of data taken from the United States census.

PEARL, RAYMOND, BIOLOGY OF POPULATION GROWTH. New York: Alfred A. Knopf, 1925.

With a milk bottle and fruit flies the author learned a lot about population growth. His conclusions are not particularly applicable to the United States because of the necessary cultural qualifications, but they afford an excellent view of biological aspects, supplementing Malthus.

PROBLEMS OF A CHANGING POPULATION, National Resources Committee.

At the time of writing, this volume contains the most recent estimates on future population growth in the United States.

THOMPSON, WARREN S., POPULATION PROBLEMS. See especially chapters IV, V, IX, X, XI, XII, XV.

Thompson and his colleague, Whelpton, are our most quoted authorities on the future growth of population, since their methods are generally admitted to be somewhat more reliable than the different methods employed by others. Thompson's material is authoritative on this general subject of the growth of population.

XVII. CHARACTERISTICS OF COMMUNITIES

A PERSON rarely, if ever, exists alone. He is linked in many different ways to a group. In infancy the most important group is the family. In later life the community becomes very important because it includes in a given area nearly all the groups of which he is a member, including his family.

It is not surprising, then, that a person tends to resemble, in a sense, the community in which he lives. John and Paul are brothers. John remains in the village in which they were brought up, living a healthful life as a small town merchant. Paul goes to the city and becomes a sophisticated urbanite, familiar with subways, night clubs, museums, and opera. Most boys and girls today move from one community to another during their lifetime. At one time such was not the case, the majority of the people living in one community all their lives. Indeed, banishment from the community was a form of punishment, and a very severe one it was considered. The choice of a community in which to live is important because a person seldom rises much above the level of his community.

Some people like the country, others the big city, and some try to combine village life with life in the city. But these likes and dislikes are often whims, not based upon rational considerations commensurate with the importance of the choice. The purpose of the paragraphs that follow is not to say which communities are better and which are worse. Enough research has not been done to do so satisfactorily; such considerations are partly moral and hence depend on values which science does not measure. However, there is a wealth of interesting material to yield some descriptions of different kinds of communities which should in themselves be of value.

RURAL-URBAN DIFFERENCES

The most widely differing communities today are the rural and the urban. That the differences are great is shown by the fact that when a city resident goes to live on a farm, without previously having had such

an experience, as is done sometimes in a depression, he finds it difficult going for a long time. When a country boy goes to the city, he does not always make good. The task of adjustment is so difficult that many go down in the process. In fact, the farm boy usually does not dare to move to the big city directly from the farm.[1] His first step is the village or small community.

Urban-rural differences were not always outstanding. But now, under the influence of steam power, villages have grown into cities, while the farming communities have changed less rapidly. The existing differences between city and country will, however, not always remain as now. The farming communities are changing rapidly for they are linked more closely to other places by the communication and transportation inventions. The cities in turn are being spread out into congeries of great metropolitan communities.

VARIETIES OF RURAL COMMUNITIES

In presenting the comparisons of rural and urban communities, it is noted that there are several kinds of each. In the United States farmers generally live in a farmhouse located on the land they cultivate. Hence the farming community is scattered over a large area and is sometimes referred to as the "open country" in contrast to the village. This mode of life differs from that in many parts of Europe, where the homes of the farmers are clustered in a village from which they go out to their lands, which often lie in narrow strips some distance away. As might be expected, this difference in ecological pattern is accompanied by significant differences in social organization. European farmers, for example, are reputed to be more sociable, while American farmers are said to be more individualistic, though there may be other factors making for such a difference. European villages of farming people are more co-operative than our rural groups in their ill-defined neighborhoods. Their greater solidarity is basic to the greater influence which European farmers exert on European society.[2]

Farming communities are by no means all alike. There is the large plantation, suggestive of pre-Civil War days in the United States, with a great house of, say, forty rooms, around which are enough cabins to

[1] JANE MOORE, CITYWARD MIGRATION: SWEDISH DATA (Chicago: The University of Chicago Press, 1939).

[2] W. A. TERPENNING, "VILLAGE VERSUS OPEN COUNTRY RURAL NEIGHBORHOODS," AMERICAN JOURNAL OF SOCIOLOGY, 36:270, September, 1930.

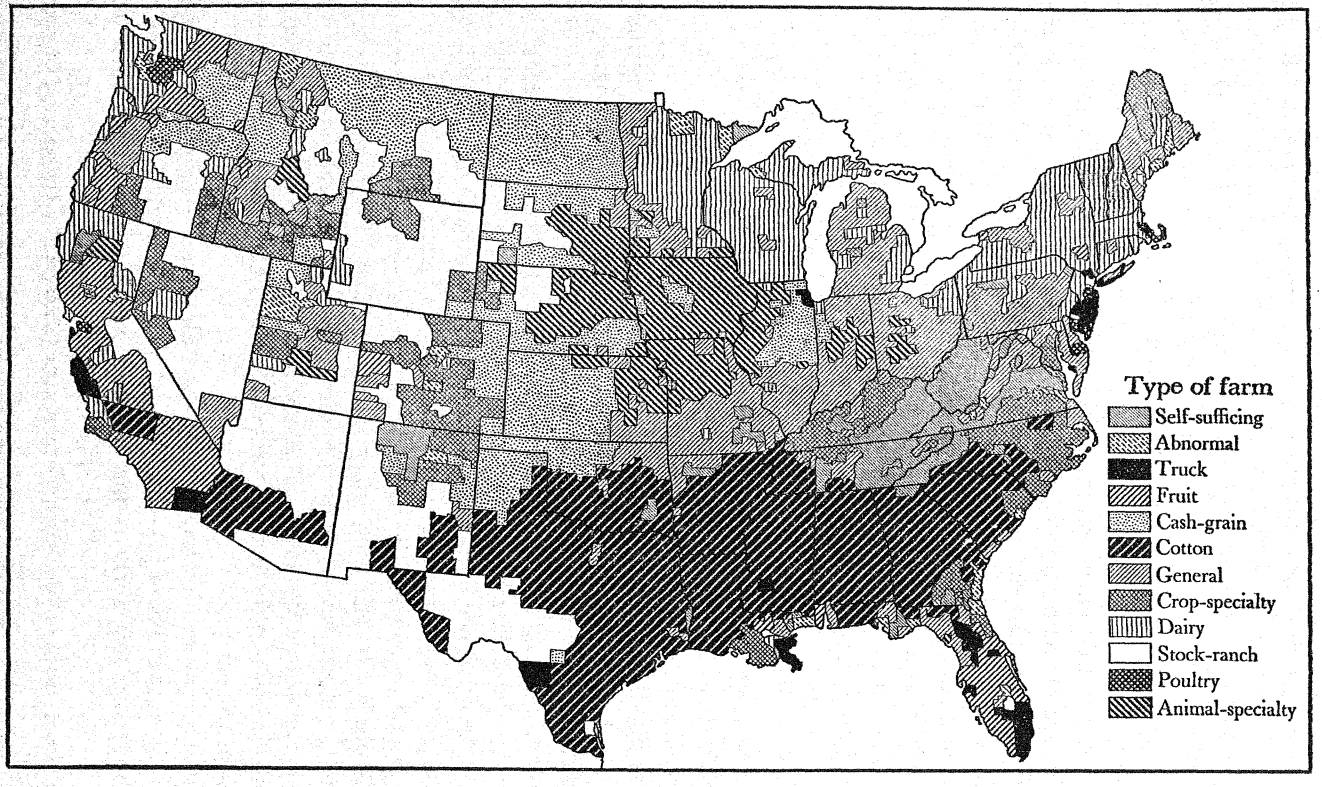


FIGURE 90. TYPES OF FARMS

The term "abnormal farms" means institutional or country estates. From O. E. BAKER, A GRAPHIC SUMMARY OF THE NUMBER, SIZE AND TYPE OF FARM, AND VALUE OF PRODUCTS, *p. 73. U.S. Dept. of Agriculture, Miscellaneous Publication no. 266 (Washington: Government Printing Office, 1937).*

house hundreds of workers. There is the large corporation farm of today, with machines to cultivate its broad acres. Many fruit farmers live in towns and even in cities, since they have no animals to care for. The dairy farmer is quite specialized. His plant is sometimes much like a factory. In contrast is the self-sufficient farmer, found often in the mountains, who buys little with money and maintains his low standard of living by the produce of his farm and homestead. The truck gardener is often located near the city and not always on large acreage. Then there is the part-time farmer, who perhaps works part of the year in a factory at a near-by town. In the United States many farmers live in hamlets and villages; some even in large towns and cities. Indeed, the small village has some characteristics that are rural, due to the fact that many of the residents were reared on farms, and some village inhabitants practice farming, while the daily contact through trade is with farmers.

The farming communities are developing new characteristics under the impetus of technological changes. These are discussed more fully in the paragraphs that follow. Two, however, may be mentioned here. One is the development of a class of itinerant farm laborers. These are proportionately most numerous on the Pacific coast, where they follow the crops as they ripen on the large farms, from early berries in the South to Canadian wheat in the North. The migratory workers are found increasingly in the South and Southwest, working on the truck, berry, and fruit farms. They usually live in camps. Many are unmarried, and for those that are married, life is not conducive to the rearing and educating of children. They are also jobless part of the year.

Another rural development is the paved highway, which tends to attract houses, dwellings or sales places. These houses are not in villages, but are simply scattered along the highway. Sometimes the farmers sell produce at stands, as well as various products of hand manufacture such as weaving, baskets, and chairs.

The urban communities are also highly diversified. Their diversification will be discussed later in this chapter, but in the comparisons which follow, places over 2500 are meant when the word urban is used unless otherwise indicated. The urban data are assembled for such places by the Bureau of the Census. The practice of the United States Bureau of the Census is to call places under 2500 rural. A village of 2000 is small as compared to the metropolis of 500,000. But in earlier economies of hunting and hoe agriculture a place of 2000 inhabitants would have

been considered a large town, and might well have been referred to as a city. Despite the rural traits of the village, many of the characteristics of the population, such as birth rate and size of family, resemble the city more than the farming communities. The village is not halfway between farm and city in the traits that have been measured statistically; it is nearer the city in its characteristics.[1] In the comparisons that follow, the contrast is between the farm, rather than farm and village, and the city.

ECONOMIC ORGANIZATION

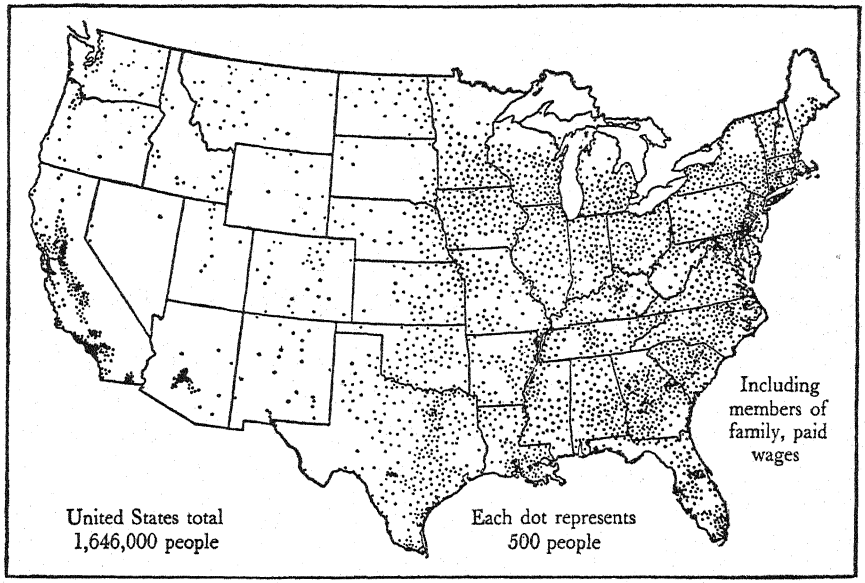
A basic difference between the farming community and the city is that the home in the country is a place of production, a sort of rural factory where all kinds of food products, animal and plant, are grown. The farmer, his wife, and children do a variety of jobs in making their living. In the city the main source of income is some specialized task outside the home, and little productive work is done at home. The farmer produces much that he and his family consume, while the city man produces little or nothing that he uses. He buys goods with money paid him or members of his family for making something for others to use.

These observations are well known, but their consequences are often not recognized. Most farmers, for instance, employ either no labor, or no labor force of any great size. The members of the farmer's family are the workers in his household-factory. In 1940, only family labor was used on 83 per cent of the farms, while only hired labor was used on but 4.5 per cent of the farms. This dependence of a farmer upon his family for labor has led, as in China, to the clustering on the large farm of prosperous farmers of various relatives, brothers, sisters, sons, wives and children, and daughters' husbands and children. In this way a large farmer gets a labor force.

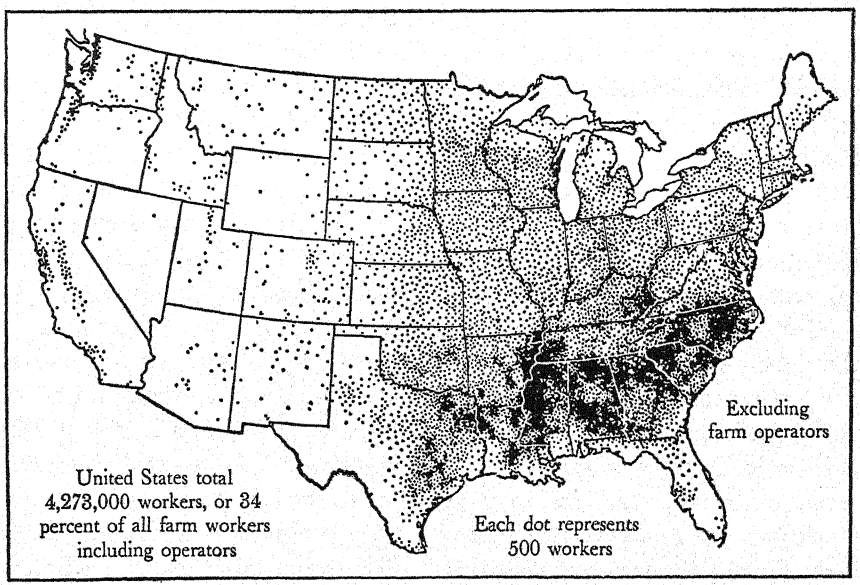
The early economic organization of rural life of the household economy type had little use for money. Wages were seldom paid, for the members of the family were the labor force. Items of daily consumption were raised on the farm, hence no money was needed. In early times most of the things farmers bought and sold were exchanged on the barter system. He borrowed no money and paid no interest. There was little division of labor, except between men and women. What one man did, all men could do. The same was true for women.

This economic organization has changed a good deal. Farmers spe-

[1] WILLIAM F. OGBURN: THE SOCIAL CHARACTERISTICS OF CITIES (Chicago: International City Managers Association, 1937).



Wage workers on farms, number, January 1, 1935



Unpaid family workers on farms, number, January 1, 1935

FIGURE 91. FARMING IS STILL LARGELY A FAMILY OCCUPATION

The number of wage-earners on farms is only 40 per cent as large as the number of unpaid family workers. From J. C. FOLSOM *and* O. E. BAKER, A GRAPHIC SUMMARY OF FARM LABOR AND POPULATION, *United States Department of Agriculture, Miscellaneous Publication no. 265 (Washington: Government Printing Office, 1937).*

cialize more in a money crop, such as cotton, berries, or wheat. The sale of this crop gives them money with which to buy the various articles they need. Farmers now sell about 85 per cent of what they produce.[1] A factory in the city goes through the same process of producing one type of goods which brings in the money to buy a living for the owners. Farmers today, then, have a division of labor, use more money, hire more labor, buy more raw materials, and market through the commercial and transportation system. Some farms represent an economic organization much like that of a factory. Such, for instance, is the fruit farmer who has orange groves. On the other hand, there are many farms today on which the farm products used by the household are the major source of income. There were about two million such farms in the United States in 1940.[2] The actual economic organization of farms today has some of the characteristics of the old household economy and some of the features of modern city industry.

THE FAMILY

As a result of this economic organization of farming, family life in the city and on the farm shows marked differences. Where there is considerable subsistence farming, women have many household duties such as cooking, sewing, gardening, gathering food, churning, making butter, feeding chickens, making brooms, and preparing home remedies. For these services farm women are not paid money, as are city women who work outside the home. Furthermore, the only employment women can obtain in the open country is as house servants. Hence farm women are dependent for a living on marriage or other family support. The family is a very important institution for all women, but particularly so for rural women. There is a larger percentage of married women on the farms than in the cities, especially during the later ages of life when the experienced woman worker is of value. Marriage is also a help economically to the man on a farm, unless he is hired out as a farm laborer. Thus in the United States in 1940 the number married on the farms per 1000 population over 15 years of age was 620, whereas in large cities with the same age distribution the number is 557. There is about 11 per cent more marriage on the farms than in the big cities. For women it is 21 per cent and for men 3 per cent more.

[1] U.S. CENSUS, 1940, AGRICULTURE, VALUE OF FARM PRODUCTS BY COLOR AND TENURE OF FARM OPERATOR, p. 29.

[2] *Ibid.*, p. 156.

Since there is little employment on farms for the unmarried women, the single and widowed females tend to migrate to the city where there is a variety of employment. The Bureau of the Census lists 440 different classes of occupations in which women are found. In the cities, then, there is a larger number of widowed and single women. In the United States in 1940, among a thousand farm women over 15 years of age, 331 were single or widowed, while in all urban places the number was 398.

THE RATIO OF THE SEXES

The proportion of men to women is lower in cities than on farms. When this proportion is measured by the number of men to 100 women it is called the sex ratio. This ratio was 100.7 for the United States as a whole in 1940, while for the urban area it was only 95.5. Moreover, as the farms are mechanized they become larger and employ labor, somewhat as is done in factories. The farms employ individuals for particular jobs and do not care for them the year around. There is thus created a rural proletariat, chiefly of males, many of whom follow the crops, fruits and berries as they ripen. In the farming population there are now 115 males, 15 years of age and over, for every 100 females. At the ages of 20 to 30 years there are 229 single men for 100 single women on the farms.

SIZE OF FAMILY

Families are larger on farms than in cities. The facts are shown for 1940 in accompanying Table 24. The farm families are larger because there are more children. Possibly the principal reason for this is that children are economically valuable at an earlier age on the farm than in the city. In the latter there are child labor laws and the money cost of rearing children is greater. Some impressive conclusions may be drawn from the figures in Table 24. For instance, in the big city, 449 families out of a thousand have no children living at home, while on the farms there are only 317 without children. There are thus many more children in farm families. Large families are very rare in the metropolis; only 130 out of 1000 have three or more children living at home. On the farms the number is 305, more than twice as many. There are also more families intact on the farms. In fact, the broken families are almost twice as numerous in the big city; 207 to 132. The farms, then, represent a more effective family organization.

TABLE 24. TYPES OF FAMILIES IN CITIES OVER 1,000,000 POPULATION AND ON FARMS, 1940 *
(DISTRIBUTION PER THOUSAND)

Type of Family	Cities over 1,000,000	Farms
Husband and wife only	320	254
Husband, wife and 1 child	207	181
Husband, wife and 2 children	152	154
Husband, wife and 3 children	64	104
Husband, wife and 4 children or more	50	175
Husband only	37	29
Husband and 1 child	10	12
Husband and 2 children	4	7
Husband and 3 children or more	3	10
Wife only	92	34
Wife and 1 child	31	14
Wife and 2 children	17	10
Wife and 3 children or more	13	16
Total of all types of family	1000	1000

* Calculated from U.S. CENSUS, POPULATION, FAMILIES, SIZE OF FAMILY AND AGE OF HEAD.

This situation may change, of course. In some regions where the household economy is so strong that there is little development of wages, the size of a farm is restricted by the size of the family. In early Europe, sons with their wives remained at home and other relatives joined the group to make a large family. Thus a larger acreage could be cultivated. Sometimes there was a lord of the manor who got a larger labor force by affording his workers protection. Today, however, with tractors and harvesting machines a small labor force can cultivate a large tract of land. Although farming communities have in the past favored large families generally, it does not seem to be especially the case in France, nor may it be so in the future in the United States.

SOCIAL SERVICES

As has been indicated, the farming community consists either of scattered houses in the neighborhood of a village or city, or of houses located close together in a village, the farmers going out to work in the small fields some distance away. In either case, the number of houses other than dwellings is small, especially if there still exists a fairly well

developed household economy. This fact means that the community does not have many specialized stores, manufacturing establishments, or different kinds of buildings for various purposes. It is obvious that such small rural areas do not have specializations that enable each community to have a theater or, let us say, a store for oriental rugs. Such lacks raise no particular problem. But there is a serious social problem in other cases, such as the absence of libraries, high schools, hospitals, which furnish needed social services to the people. Recreational facilities are also limited in these farming communities. The proportion of physicians to the population is much smaller than in cities. Indeed some rural counties are unable to attract a competent physician in any other way than by employing one from the funds of the county government. While there is relatively a better supply of churches in the rural areas (there being, for example, three churches for every 1000 inhabitants in the southern Appalachian Mountain region),[1] about two thirds of all rural churches lack resident ministers.

One cause of these differences between rural and urban communities is the disparity in income. The cities have a greater per capita wealth than the farming communities. The multimillionaires are found in the cities. The average per capita income in 1940 for the farm population of the United States was only $179, a fourth of what it was for the nonfarm population.[2] The higher incomes in cities are accompanied by higher living costs and additional expenditures that do not have to be incurred on farms, but the range in prices and living costs is not as great as the range of incomes between farms and cities. There are, of course, wealthy farmers and wealthy farming sections, just as there are rich urbanites and prosperous urban areas. The comparisons are for the averages.

SOCIAL CHANGES IN RURAL-URBAN DIFFERENCES

The characteristics of rural life in America and Europe today as compared with those of cities may be seen from the point of view of social change. The cities are more recent. A century and a half ago a very large majority of the people of all countries lived in farming communities. At this time the larger and wealthier farms, represented by the

[1] United States Department of Agriculture, ECONOMIC AND SOCIAL PROBLEMS AND CONDITIONS OF THE SOUTHERN APPALACHIANS, Miscellaneous Publication no. 205 (Washington: Government Printing Office, 1935), p. 168.

[2] United States Department of Agriculture: AGRICULTURAL STATISTICS, 1942 (Washington: Government Printing Office, 1942), p. 663.

estates of the nobility and the gentry, enjoyed a greater prestige than did the households in most of the cities of the time. The cities were based upon the handicrafts, and were without the benefits of sanitation and paving. But the cities grew up on the profits of mass production using steam and electric power. The technical progress was less rapid on farms, though science in agriculture made great strides.

Naturally, there are now to be found in the farming communities a larger number of surviving customs, that is, those that characterized previous centuries, than are found in cities with their new ways of life. Thus family status means more in the rural communities where the family renders a larger number and variety of services. Also in some regions the administration of justice is still handled by the family; this is true for disputes arising between families as well as within families. An

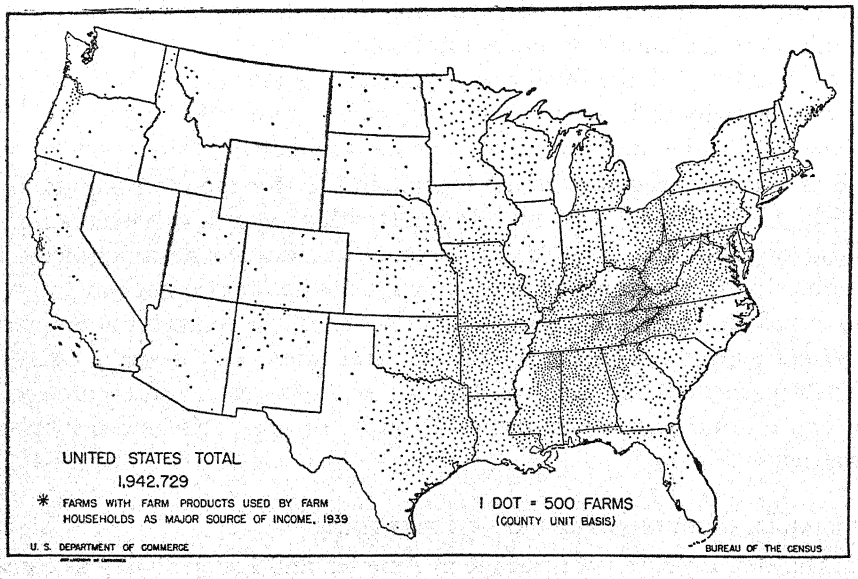


FIGURE 92. SUBSISTENCE FARMS IN THE UNITED STATES, 1939

A subsistence farm is one on which the farm products used by the farm household are the major source of income. From United States Bureau of Census, 1940, AGRICULTURE, VALUE OF FARM PRODUCTS BY COLOR AND TENURE, A SPECIAL STUDY, *p. 155.*

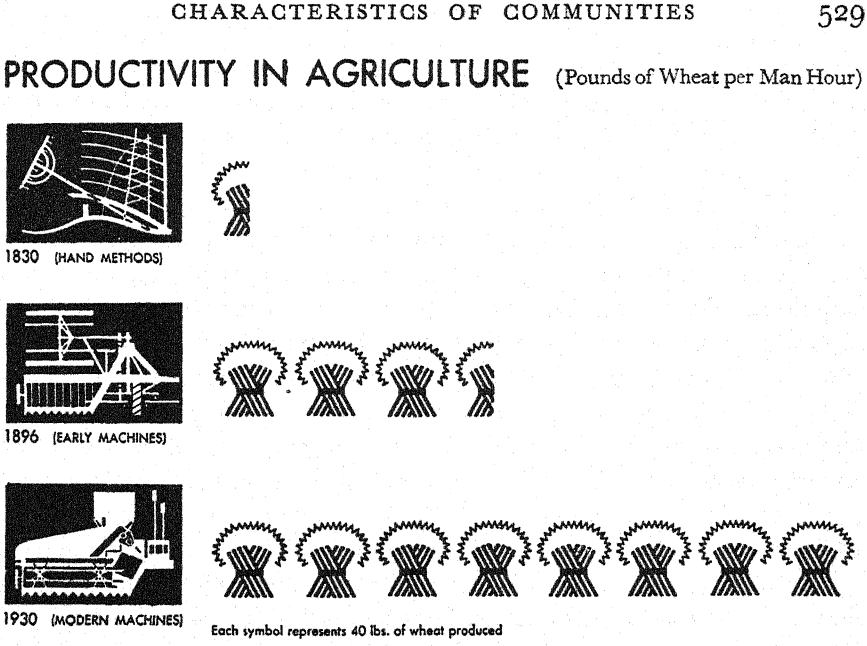


FIGURE 93. THE CHANGING FARM

Mechanical power is coming to the farm in the twentieth century, as it did to the handicrafts in the nineteenth century, bringing technological unemployment and an agricultural economic system more like that of the cities. From PICTORIAL STATISTICS, INC.

instance is the feud, which is beyond the reach of the courts. Similarly there is in general a fuller representation of the religious and moral views of earlier centuries on farms than in cities, though the rural church has been adopted by cities without a great deal of change.

The distinctions which have been drawn between communities of farmers and those of urbanites were more true in the early nineteenth century than they are at the present time. The chief reason for this change is to be found in the remarkable developments in technology. In some of the mountainous regions of the southern Appalachians where transportation facilities are not good, the conditions of farming are now much like what they were in the eighteenth century when the colonies were still part of Great Britain. For instance, in 1930 in Knott County, Kentucky, 75 per cent of the farms made soap, 33 per cent made brooms, 82 per cent repaired shoes, 30 per cent did dyeing, 95 per cent made lard, and 90 per cent made sausage.[1] American farms have since become

[1] United States Department of Agriculture, ECONOMIC AND SOCIAL PROBLEMS AND CONDITIONS OF THE SOUTHERN APPALACHIANS, p. 149.

less self-sufficient and some are like factories specializing in certain products such as wheat, cotton, milk, fruit, tobacco, poultry, cattle, or truck garden produce. In spite of this, in the United States in 1939, 32 per cent of the farms are rated as subsistence farms.

The Industrial Revolution — that is, the application of extensive mechanical sources of power to production — took place first in the handicrafts. This revolution did not occur in agriculture, for steam engines requiring special tracks (as in the case of the railroads) were too big to move about on the small farms. Farming, besides, had the advantage of the power from horses and oxen. Furthermore, the manufacture of food crops was accomplished by nature through the automatic application of sunshine and rain to the good earth. But now gasoline and electricity are being used in connection with farm machinery, and the industrial revolution is occurring in farming. The effects of the Industrial Revolution on agriculture will resemble somewhat the effects of the industrial revolution on the handicrafts. For instance, the corporation has made its appearance in farming, especially as insurance companies and other incorporated mortgage holders have taken over large bankrupt farming enterprises. The country thus tends to become more like the city.

In addition, modern phases of culture, originating in the city, are diffused over the land, so that many distinctions are obliterated and the life of the entire population comes to be more nearly uniform. Such things as the radio, telegraph, newspaper and good roads, are instruments of equalization. The farmer who reads the metropolitan daily, who takes frequent trips to town in his car, who has a telephone and an electric refrigerator on his place, and who sees the same motion pictures that the city man sees hardly belongs to the old "hayseed" variety. The changes wrought in the farmer by these agencies of culture diffusion are real, even though they may come slowly. The currents of city influence reach the village first and the open-country later.

The differences between country people and city people are gradually being lessened. Interesting corroboration of this fact is provided by the study of the answers which country and city children gave to a series of questions which could be answered either in country or city style. Such questions were included as: what are bulbs for? What is the first thing you would do in case of fire? Where do you get the milk you drink? The city children gave city answers more consistently than the rural

children gave country answers.[1] This result suggests that although these country children still had a rural mind-set, they showed unmistakable signs of city influence. The same observation holds for adults. "The great fact about farm people," writes Galpin,[2] "is the shift in their thinking and behaving." They are, he believes, losing their old faith in the "finality of hard work and a good crop" and like the city populations, are seeking a new faith in the doctrines of practical social humanism.

The City as a New Environment

THE URBAN ENVIRONMENT

The material conditions of a modern city are different from those of any other environment that man has ever lived in. As tree dwellers, man's ancestors lived without a roof. Later, man dwelt in caves; dug himself a hole in the ground and put a covering over it; or set up a lean-to which provided some shelter. Fire he has had for a long time, but at first it was probably more effective in cooking and lighting than in heating the atmosphere around him. Clothing he has also known how to make for tens of thousands of years. But even when he had houses, man spent much time out of doors. Without glass or chimneys, and with only poor artificial light, the attractions of the indoors were not as great as now. Besides, the occupations which kept the family busy were outdoor activities. With stoves and lamp chimneys, houses came to be used more and more during the evening hours for activities other than sleeping.

Great as were these environmental changes over those of the hunting era, the city extended these tendencies to such a degree as to create an artificial climate the year round. The houses are tall and crowded close together, so that the sky is less visible, while the dust and smoke reduce the effectiveness of the sunlight.[3] Much transportation in cities, vertical as well as horizontal, is underground or in houses. There is

[1] J. M. Shales, "A study of mind-set in rural and city school children," Journal of educational psychology, 21:264, 1930.

[2] C. J. Galpin, "Rural life," American journal of sociology, 35:1010–16, May, 1930.

[3] For example, in Chicago, "in the winter months no ultra-violet ray of physiological value reaches the people. . . . Even in the summer Chicago may be seen from an airplane to lie under a vast cloud of gray smoke." W. C. Alee and W. E. Cary, "Shall we move to the country?" scientific monthly, 36:529–30, 1933.

very little physical production today, except for farming and allied pursuits, that does not take place indoors. Labor-saving machines are reducing the physical exertion that was once so arduous in digging, lifting, cutting, and transporting. The sedentary occupations are increasing rapidly. The control of temperatures indoors during hot summer months and in hot climates makes the life indoors still more attractive. Surely the environment of the modern city is very different from what man's surroundings were for hundreds of thousands of years. It would be odd if so strange and new an environment did not have effects upon man's physiological and psychological behavior.

There is another characteristic of city life that is utterly new to human experience: living in close contact with such large numbers. About the city there is a density and overcrowding that profoundly modifies group life. This aspect of cities was very impressive to a Stone Age Indian discovered in the wilds of California in 1915, and brought to San Francisco by the anthropologists of the University of California. Having hunted with stone weapons as part of a small group, he was in terror of the large city crowds. These impressed him more than the steam locomotive or the airplane, which he regarded merely as other miracles of the white man.

INDICES OF URBAN MALADJUSTMENT

Death rate. Large aggregations of human beings living close together increase greatly the danger of contagious and infectious diseases. The toll of life taken by epidemics in cities, such as the Black Death in London or the yellow fever in New Orleans, has been estimated as perhaps a third of the total population. There are those who believe that whole cities in the remote past were made unlivable because of deadly plagues. The reasons for the destruction of cities in the past is not clearly known, but various factors were probably responsible, including war and a reduction in the water supply. On the other hand, Eskimo hunters before the coming of the white man were free from influenza and are now generally so in the far north, except when the air pilots land. Their visits are often followed by a wave of bad colds.

Modern medicine has remarkably decreased the hazards of life in cities, as has also sanitary engineering, which has eliminated mud and muck, covered the sewers, and sterilized drinking water. However, the public health activities in cities have not been achieved without considerable cost. In American cities of over a million inhabitants the

taxes per capita for public health work in the early 1930's amounted to about $1.50, which meant an expenditure of from one or two million dollars to seven or eight millions a year by the government. The per capita cost in the smaller cities of from 10,000 to 50,000 was only about one half as much.[1] But even with all this cost, urban dwellers still do not live as long as do rural natives. The length of life of the former in 1930, as based upon life tables, was 59 years, while for the latter it was 64 years.[2] The difference would probably be still greater for the farmer as compared with the inhabitant of the metropolis.

Anonymity and the crime rate. The large numbers living together in cities mean anonymity, a condition that is comparatively rare in bands and small communities. In the latter, intimate primary group relationships prevail.[3] The percentage of the population in a metropolis unknown to any one citizen is very large, but in a small village it may be zero. For instance, in a study [4] of a mining town of 1500 persons in the Rocky Mountain area, it was found that the average adult had a speaking acquaintance with about one fourth of the people in town, and knew by sight, name, or reputation approximately nine tenths of all the grown-ups. In a large city, different families living in the same apartment house may not be known to each other.

These differences are significant. For instance, it is not easy in a small place for one person to steal from another, for he would have difficulty in using the stolen goods. The actions of an individual are more likely to be observed, and gossip acts as a substitute for the police. On the contrary, the conditions of city life are such as to favor stealing, which comprises from 90 to 95 per cent of the crimes committed. This is the reason why it is said that crime is an urban phenomenon. Rape and fighting and murder are crimes occurring in farming communities at rates probably not very greatly different from those in cities. The data on criminal offenses in farming communities have not been collected, but Table 25 shows how crimes diminish as the community becomes smaller.

The inadequate urban birth rate. There are many other indices of urban maladjustment. One has to do with breeding. It is often said about zoological gardens that wild animals do not breed well in cap-

[1] FINANCIAL STATISTICS OF CITIES (Washington: Government Printing Office, 1932), p. 390.

[2] LOUIS I. DUBLIN and ALFRED J. LOTKA, LENGTH OF LIFE, p. 91.

[3] See Chapter IX for a discussion of the distinction between primary and secondary contacts.

[4] ALBERT BLUMENTHAL, SMALL-TOWN STUFF, p. 124.

TABLE 25. OFFENSES KNOWN TO THE POLICE PER 100,000 POPULATION IN 1938, ACCORDING TO SIZE OF CITY AND TYPE OF CRIME *

Offense	Over 250,000	100,000–250,000	50,000–100,000	25,000–50,000	10,000–25,000	Under 10,000
Murder	5.6	7.2	5.8	3.6	3.7	4.3
Manslaughter	6.3	4.6	3.4	2.6	1.7	2.9
Rape	10.0	6.5	6.6	6.6	6.6	7.9
Robbery	80.5	55.0	52.4	34.0	30.0	27.0
Assault	48.5	54.6	57.2	33.7	31.0	24.9
Burglary	374.1	415.5	356.0	326.8	254.8	224.2
Larceny	927.9	980.0	932.2	865.6	696.9	480.1
Auto-theft	233.7	213.2	183.8	168.8	121.5	87.3

* Taken from UNIFORM CRIME REPORTS, Federal Bureau of Investigation (Washington: Government Printing Office, 1939), IX(4):129

tivity. City life may not place the cave man within us in captivity, but it does appear from Figure 94 that man does not breed as well in cities as in the rural districts.[1] At the present time in the United States the city people do not have enough children to replace the elders when they die. It has been computed that in the large cities 100 babies will be replaced by only about 73 babies, should conditions affecting birth and death remain as they are now, whereas on the farms 100 babies will leave behind them 156 babies.[2] The population of the cities would dwindle

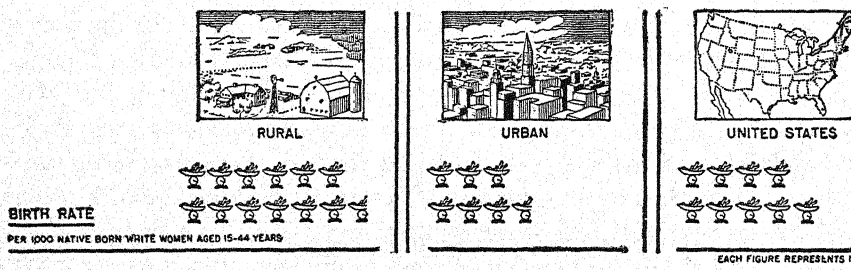


FIGURE 94. URBAN AND RURAL BIRTH RATES

The birth rate, when computed on the basis of women of child-bearing age, is about twice as great in the rural regions as in the urban regions. From OUR CITIES, *p. 11 (Washington: National Resources Committee, Government Printing Office, 1937).*

[1] Taken from OUR CITIES, National Resources Committee, p. 11, Figure 21.

[2] U.S. Bureau of the Census, STATISTICAL ABSTRACT OF THE UNITED STATES, 1943, p. 56. Data for 1935–40.

and slowly die off if it were not replaced by migrants from the farms. To be sure, the situation regarding reproduction is dynamic, and soon the birth rate may fall low on the farms as they become mechanized. Indeed, the question may be raised as to whether man in modern civilization, rural or urban, will breed sufficiently to maintain the population.

In the cities of the United States there are about 551 young persons (under 20 years of age) to every 1000 middle-aged adults (20 to 55 years of age). On the farms there are 995. The city is an environment for the adult, and is a consumer rather than a producer of human resources. The costs of this supply of productive labor to the cities is borne by the inhabitants of the farms and small communities. These places present to the cities every year hundreds of millions of dollars invested in the migrants as payment for their education and rearing.[1]

The city as it exists today is a place for adults rather than for children. The structure of houses and the planning of the streets are for the convenience of adults. It is exceedingly difficult to rear a healthy normal child in a modern city apartment the year round. Summer camps — and week-end winter ones too — are social inventions designed to bring city children the advantages of rural life.

Suicide and insanity rates. The impersonality of city life has additional consequences as well. The fact that it is easy to be lonely in a large city and not in a small town is of psychological significance. The closer indentification with the group in a small place, though lessening freedom of action, may lead to a more normal life for many individuals, especially for those who have been conditioned in early years to live in a close small group. However this may be, another index of man's difficulty in adjusting to city life is the high suicide rate to be found there.[2] Not as large a proportion of individuals take their own lives in rural communities, the suicide rate being about a third less in the rural areas than in the cities.

A more widespread phenomenon is insanity. The number of patients in hospitals for mental disorders is greater than that in all other hospitals combined. This type of maladjustment is found about twice as frequently in cities as in rural districts. To be sure, hospitalization is more likely to occur in the case of the urban dweller, since it is more difficult to care for an insane person in a city home than it is on the farm. Despite such an influence, the medical examiners of the young men drafted in 1917 for the World War rejected many more boys from cities than from

[1] See Chapter XV.

[2] National Resources Committee, OUR CITIES, p. 12.

rural regions because of mental disorders.[1] These were young men who had not been committed to a hospital for the insane, though they perhaps should have been. Of all the mental diseases, hysteria was the only one more prevalent in rural than in urban districts.

It may still be argued that the city selects in its immigrants a type that is more likely to go insane, and that it is not the city environment that causes the insanity. The same point may be made regarding suicides. The persons likely to commit suicide may be the type that migrate to the city, and hence the strains of city life may be no more responsible than the strains of rural life in causing men to kill themselves. It is difficult to secure evidence one way or the other regarding this theory.

FAVORABLE URBAN ENVIRONMENT

While the data reviewed above indicate urban maladjustment, there is also evidence of the attractiveness of cities, their intellectual stimulation, their economic opportunities, their hospitality for artistic expression. It is clear that "the great city, with its 'bright lights' its emporiums of novelties and bargains, its palaces of amusement, its underworld of vice and crime, its risk of life and property from accident, robbery, and homicide, has become the region of the most intense degree of adventure, and danger and excitement and thrill." [2] Most of the advantages, however, are of a cultural nature, and throw little light on biological adjustment.

It must be remembered that man's experience with cities is very brief. In the United States it is not much more than a century, which is a mere flick in time compared to the aeons man has lived in other types of environment. Certainly the large cities of America and Europe are much improved places in which to live as compared, say, with medieval cities. For so short an experience, the collectivist type of city government has been remarkably successful, for instance, with its fire department, police force, social-work programs, and public health services. In Illinois in the last 25 years the death rate from tuberculosis has dropped more rapidly in the city than in the country districts; and since 1929 the urban infant mortality rate has been lower than the rural for the country as a whole. Moreover the differences between urban and rural death rates are less than the variations within the cities themselves. Therefore

[1] ALBERT G. LOVE and CHARLES B. DAVENPORT, DEFECTS FOUND IN DRAFTED MEN (Washington: Government Printing Office, 1920), pp. 351–52.

[2] E. W. BURGESS, THE CITY (Chicago: University of Chicago Press, 1925), p. 58.

the difficulties of adjusting to this new type of material environment should not be seen as something permanent. The human race is experimenting with cities. As in other inventions, improvements occur with use. It is therefore quite thinkable that men may so change and improve the city that an even better adjustment will be had here than in the rural environment. The city is too new and changing to warrant rigid conclusions regarding it.

It is also possible that the city as it is now known will not exist several hundred years hence. It was made by the factory and railroad. But now the automobile is providing an excellent short-haul type of transportation, and the old-time city is expanding into the metropolitan community, which may be more successful as an environment to which to make a biological adjustment.

Communities of Different Sizes

It is customary to contrast the farm with the city as though there were only two types of communities. There are, in fact, various gradations in size, from the hamlet at the crossroads, or the village strung out along the highway, to small and large towns, on through to cities of different sizes. Not only are these places of different size, but towns and cities vary according to major occupations, just as farms vary according to product. For instance, there are at least two types of village. One is the agricultural village, which exists as a trading center for the surrounding farms. Its reason for being is the merchants who sell to the farmers and buy from them. There may be a bank, a lawyer, a doctor, school teachers, a garage keeper, and others, who serve the community built up around the merchants. Darien or Whitewater, Wisconsin are such towns. So also there is the industrial village, which has a small manufacturing plant, perhaps a cotton mill or a stove factory. Lindale, Georgia, is such an industrial village built around a cotton mill. There will be the subsidiary service occupations in the town as well as the central occupation. Sometimes the industrial village and the agricultural village are combined, with the occupations, the factory, and the stores bringing money into the village.

City types

Larger towns and cities are also specialized. In addition to trading centers and factory towns there are others; for instance, the transporta-

tion center which grows up around the junction point of two or more railways such as Ogden, Utah, or a port where land passengers and freight are transferred to boats, like Savannah, Georgia. These transportation centers also develop trade and manufacturing, but since warehouses, freight terminals, and trucking are extensively developed there, they are characterized as transportation centers.

Similar to factory towns are the mining towns. These are usually quite small, though Hibbing, Minnesota, over a large iron mine, or Butte, Montana, near a copper mine, are fairly large places.

There are a number of towns and cities whose most conspicuous activity is that of government, or so it seems to the public, as for instance Olympia, the capital of the state of Washington. Growing up around the governmental activities are various subsidiary activities such as merchandising and professional work. Washington, D.C., is a city of two thirds of a million, where the main activities are almost wholly governmental.

Similar to government cities are college towns, such as Princeton, New Jersey, where the trade of students and faculty draws a few subsidiary stores and service organizations.

Atlantic City is a specialized pleasure resort. There are also health centers, like Rochester, Minnesota, and Saranac Lake, New York. Reno, Nevada, to the public mind is a place specializing in divorce.

In nearly all these cases, however, the actual occupations are not as centered as the appellation indicates. Many people go to Colorado Springs for their health, but there is a college there, and many rural persons use it as a trading center. It is a pleasure resort in the summer as well as a health resort. Usually the larger the city, the less likely it is to be a highly specialized type. Chicago was called a meat-packing city, but there are great steel mills there, and clothing manufacturing, as well as warehouses and wholesale marts. The Twin Cities, Minneapolis and St. Paul, though the home of great flour mills, have many more occupations. Los Angeles has activities other than motion picture production, and in Detroit the production of automobiles is only a part of what makes the city famous. There are many more places with several types of activities than with just one.

Of recent years there have grown up suburbs of cities, of which there are many types. There is the bedroom suburb, where people sleep and live, but work in a near-by city. An instance is Berwyn, Illinois, adjoining Chicago. Some of these suburbs are the homes of the rich, as for instance Evanston, near Chicago, or Bronxville, near New York City.

Others are the homes of workingmen. Some suburbs may properly be called satellite cities, since their inhabitants are not commuters to the great city, but work in industries situated near the metropolis and derive an advantage from being so near. Such a city is Whiting, Indiana, a center for refining oil, located near Chicago. The suburbs and satellite cities all differ from the independent cities in that they share part of the life of the big city and are dependent upon it, especially for trade and pleasure. The growth of cities has led to variety as well as to specialization.

THE AVERAGE CITY

The presentation of the characteristics of cities of different size and type may be simplified by drawing a picture of the average city and noting deviations for the different types. The description of the average city is of some interest, much as is the portrayal of the average man. The average city in the United States is one with about 50,000 inhabitants. If a great many places of around 50,000 inhabitants are chosen and their various traits averaged, there emerges the picture of the average city.[1]

What the people do. In the average city the largest class of workers are those engaged in manufacturing. A little over one third (37 per cent) are at work making things. The very large cities have a slightly smaller per cent at work in manufacturing establishments. Also the small villages usually have less manufacturing than the average city. The conception of a city is often that of a place where people do not raise the food they eat but make something which they can exchange for food. But in the average American city about two thirds of the population are not engaged in making any object they can sell. Some make their money by buying and selling goods made elsewhere; between one fifth and one sixth of the working population are engaged in trade. One out of ten persons at work in the average city is engaged in moving objects or persons from one place to another. The proportion is nearly the same in the larger cities, despite the greater distances. Perhaps larger loads of goods and passengers are carried. About the same proportion, 1 in 10, is following an occupation little developed in former times, clerical work such as writing, filing, copying and figuring. There is more clerical work in the bigger cities, where the percentage so occupied is around 1 in 6. The metropolis is a great center for office buildings.

[1] WILLIAM F. OGBURN, THE SOCIAL CHARACTERISTICS OF CITIES, pp. 36 ff.

The resident of average town not only does not make the things he uses, he also does not provide for himself all the services he needs. One hundred working inhabitants and their families need the aid of eleven or twelve persons to render them personal services such as preparing and serving foods, laundering, cleaning, and cutting hair. There seems to be not much difference in the requirements for this type of service, no matter what size city one considers. There is a still higher type of service requiring a longer period of training, as law, medicine, dentistry, and teaching, and other professions. About one in eleven are engaged in such services, except in cities of over a million, where the number is smaller.

TABLE 26

SOCIAL CHARACTERISTICS OF AVERAGE TOWN IN THE UNITED STATES

OCCUPATION

50,000	Total population
22,000	at work for money, ordinarily
28,000	dependent on others or on savings
8200	fabricating material things
2400	transporting people and objects
3800	buying and selling for a living
2500	recording, filing, writing
2700	serving, personal and domestic
1900	serving in the professions
500	working for public service
524	teachers
110	musicians
88	physicians
44	dentists
92	lawyers
68	preachers
60	police
81	guards and inspectors

AGE

16,300	young people, under 20 years
26,300	middle-aged, from 20–55 years
7,400	old people, over 55 years

SEX

24,600	males
25,400	females
95	males 15 years and over for every 100 females
117	single males 15 years and over for every 100 single females

FAMILY AND MARRIAGE

3.3	persons in average family
65	per hundred families have no children under 10 years of age
31	per hundred families received incomes from more than one worker
15	per hundred families have the wife working outside of home
10	per hundred families kept roomers or boarders
68	per hundred young persons 16–17 years of age in school
61	per hundred adults 15 years and over are married
34	per hundred adults 15 years and over are single
5	per hundred adults 15 years and over are widowed or divorced

INCOME AND EXPENDITURE

$1325	average earnings for store and factory workers
28	average monthly rent
5000	average value of home

GOVERNMENT

$ 80	tax per worker
180	government debt per worker

The average city has a slightly smaller percentage of physicians than the larger places, but about the same percentage of lawyers and dentists.

There is more crime per capita in the larger cities, and the teeth are supposed to be worse, yet there are no more lawyers or dentists. To have their physical ills administered, four physicians are available for every 1000 of the working population in average town. The supply of lawyers is slightly greater (4.2 per 1000). The need for persons who minister to the spiritual ills of the community seems to be slightly less, 3.1 per thousand, than is the need for those who minister to the physical ills, if statistics of occupations are a fair index. At least the number of preachers is smaller than the number of physicians. As for dentists, they are only about half as numerous as physicians. In the larger cities the proportion of the population that are preachers is a good deal less than in the average city, though one might hazard the guess that the need for preachers is greater in the larger cities. The percentage of clergymen in cities of over one million population is half what it is in the average city.

The need for teachers in the large cities is less because there are fewer children per family. Music, which is not considered a necessity, calls for more teachers and performers (4.8 per 1000) than does medicine, dentistry, the ministry, or the law. There are, though, about half again as many musicians per 1000 workers in the large city as in average town. The metropolis also has many more artists, sculptures, writers, actors and showmen than are found in the city of 50,000. How many persons are required to keep order in the average American city? Twenty-seven police for every 10,000 workers. The number of guards, inspectors and officials is slightly larger, 37 per 10,000.

Who are the citizens? The average city is slightly more attractive to women than to men, if we may so interpret their presence, for there are only 97 men to every 100 women, though slightly more boys are born than girls. In the open country there are 115 men to 100 women. The differences are due to the migration of young women to the cities. Men are more in demand as farm laborers than women. Contrary to expectation, in the very large cities women are not in excess, for there are 102 men to 100 women. The reason is probably due to the presence in the very big cities of large numbers of immigrants from Europe, for many more males than females come into the United States from other countries. When and if the foreign born disappear in this country, the big cities will probably show a substantial excess of women. The opportunity for men to marry is thus greater in the cities; for women it is greater in the open country.

American cities are largely made up of young and middle-aged adults

from 20 to 55 years of age. This excess of young adults occurs because of migration to cities. Hence the average city has few dependents, for most of the population are of working age. The population has a larger per capita income because a larger per cent are at work and they spend most of it on themselves rather than on dependents. The number of young people under twenty, most of whom are in school, are in the average city only about two thirds as numerous as the adults of working age. In the big cities they are less than two thirds, but on the farms there are more dependents, young people under twenty, than there are adults 20 to 55 years of age. The ratio is 116 to 100. The economic burden of young dependents is nearly twice as great in the open country as it is in the cities of over a million inhabitants. Since the young people move from the farms to the cities, it is seen from the foregoing statistics that the farms bear the cost of rearing and educating many city dwellers.

The working population of the average city, defined as those 20 to 55 years of age, have from one quarter to one third (28 per cent) of the total population, that is, those over 55 years of age, dependent on them, for many of these old people have no jobs, have saved no money, and need to be supported by the working population. The dependency of old age is less than that of youth, for the youth are two thirds the number of adults of working age. Those over 55 years of age are called old, though many would resent the adjective. The year 55 is chosen arbitrarily, though few men over 55 are hired by industry for new jobs. The big city has fewer old persons and the farms have more. In the agricultural villages, however, the old people are nearly one half the number of adults of working age (44 per cent). The young people have left the agricultural village for the larger towns and cities, leaving old people behind. Of the different types of cities in the United States, the factory towns have more children and fewer old persons than the average town, as do the transportation centers and mining towns. The pleasure and health resorts have, on the other hand, fewer children and more older persons. The college towns have a very high percentage of widowed.

In the average city, 2 out of 3 persons are of native stock, that is, born of native-born parents. But in a city of 50,000 in the southern part of the United States, 1 out of 3 is a Negro, while in a city in the northern or western states, he will either be foreign born or the son or daughter of an immigrant. Of those not native born of native parents, one out of three will be foreign-born, and 2 will be children of foreign-born parents.

Who work and what they receive. Of the population of working age

in the average city, most of those who work for money are men. Yet in the typical city, one in every four adult women works outside the home for money. Married women usually do not work away from home, and if employed when married usually give up their jobs. Yet in average town one in eight married women are employed away from home. With this proportion of women at work, and assuming in normal times that nearly all men of working age are at work, it is estimated that in the average city every 100 at work have from 125 to 150 persons to support.

How much does the average person earn in the average American city? This is an important question. Dividing the average total payroll in factories by the average number of employed per month in factories, the annual income of $1300 is derived. In retail stores the figure is about $1350. In the typical city of the southern states the earnings are only $960 in manufacturing and $1190 in retail stores. Wages are higher in the bigger cities, around $1400 and $1500, and lower in villages and on the farms. The proportion of income tax payers is probably 40 per cent greater in the metropolis than in the average city. The average family in the typical city pays $28 a month rent. In the city of over a million, the family pays on the average slightly more than $40 a month rent. Rents are lower in the villages. The average value of the house owned by the family is $5000, while in the cities of over a million it is nearly $8000. In average town about 1 in 40 or 50 dwelling houses is an apartment house, and about 1 in every 10 families lives in an apartment. America is still a country of individual homes.

What the family is like. Considering two persons as a minimum family, the family in the average town consists generally of three or four persons, including boarders and relatives. One family in ten has boarders or roomers. There is not much difference in the size of the household in cities of different sizes, though the family proper is smaller in the big cities. The larger cities have a slightly smaller proportion of families with five or more persons than does the average city, and a slightly larger per cent of families of one or two persons.

As to the number of children, there are about 550 children under 10 years of age in the homes of 1000 married women in the average city. Some have died and some have grown up and gone away. In the city of a million and over the number is less, 485. Of the different types of cities, larger families are found in factory, mining and transportation towns, and in industrial suburbs. Pleasure and health resorts and

wealthy suburbs have smaller families. Two out of three families in average town have no children under ten years of age living at home. The time required to care for a child in the home diminishes rapidly after the age of ten.

This large percentage of families with no children at home under ten years of age helps to explain why so many wives can be employed away from home. The male head of the house is by no means the only bread-winner in the average city. About one in three families had more than one person contributing to the family purse in 1930. Nearly everyone nowadays finishes the elementary school, but not all finish high school. Those who do not go to high school have the doors to many opportunities shut to them. In the average city, about 6 out of 10 young people 16 to 17 years of age are in school.

Not everyone forms a family, of course. In the typical city 6 out of 10 persons 15 years and over are married and about 1 in 10 is widowed or divorced. Thus 3 out of 10 are single. In modern times, the demands of civilization are such that not many young persons between 15 and 18 can get married. In any case 4 out of 10 beyond the biological age for marriage are not married, whatever may be the social significance. The sex ratio of single persons in the city of over a million is 133, that is, there are 133 single men to 100 single women, while in cities of 50,000 it is 112. On the other hand, the sex ratio of the widowed is around 50.

There are other aspects of family life to be observed. The smaller the city the larger the proportion of home owners. The larger the city the greater the number of sales in restaurants and hotels.

There is some interest as to the type of family that the suburbs are developing. One theory is that the man is away from home more, and hence the influence of the wife and mother is greater on family life. There seems to be little evidence available on this point. But it is true that there are more married persons in the suburbs, partly because married couples have moved outside the city. Yet there are also more unmarried persons in the suburbs than in cities of the same size. How can there be both more married and more single per unit of population in the suburbs? This is possible because there are fewer widowed; and one of the reasons why there are fewer widowed is that the population of the suburbs is younger, probably because the suburbs are rather recent. Also there are fewer families in the suburbs with no children under the age of ten than in other cities of comparable size. Curiously the suburbs have more apartment houses than do cities which are not in the metro-

politan area of big cities. This may be due to the recency of building construction in the suburbs. Home ownership is as common in the suburbs as elsewhere, and more common than it is in the metropolis to which the suburbs are attached.

Married women are employed less outside the home in the satellite cities, as would be expected because the family is larger. On the other hand, there are fewer little children under five years of age than in other comparable cities. It may be possible that migration to the suburb does not occur until the baby has grown older. In general the suburb presents a picture of more family life than does the average city or place of similar size outside the shopping area of a big city. The suburb seems less normal in only two regards, fewer little children and a large percentage of single persons.

How the citizen is governed. A city government is a collective activity of the citizens for their own interests and welfare. Of these collective services, most are generally considered essential, despite the taxpayers' protests. How much does government cost in the average city in the United States? The average tax was $43 for each person over fifteen years of age in 1930. In the big cities the annual tax was much more, about $70. The payment of the tax is made from the pockets of the working population. The tax load for city government in the average city for the person at work is about $80, about one seventeenth of the average wage-earner's annual income. There is not much meaning to such an average figure, however, since taxes are distributed unequally and the incidence of the tax is not always known. Viewed in another way the tax is only $32 per capita. What does the average person get in the average city for $32? Police protection, garbage collection, the use of paved streets, and so on. Could he spend the $32 better? Perhaps so, but the services he gets are essentials. Of the taxpayers' dollar, a large portion goes for schools, with smaller amounts for libraries, public health, and recreation.

The resident of the average city does not fully pay his way as he goes along. Hence his city is in debt, though the amount is probably not excessive, $70 per capita or probably $180 per working adult, whose average income is near $1300. The debt is greater in the big cities, approximately $175 per capita, and the ratio of the debt to the value of city property is higher. On the other hand, the big cities have more problems than the average city and more occasion to spend money. They furnish more social services; more charities, public health, parks

and playgrounds; and more city schools. These expenditures are greater in the larger communities because of the density of the population and because more family functions have been taken over by governments, as indicated by the juvenile courts, domestic relations courts, pensions, school functions and the like.

The foregoing inventory of the average city and its comparison with other communities shows how dependent an individual is on the community in which he lives. It is easy to see how much his ideas and personality and behavior are the result of his community life. Despite the unifying forces of advertising, marketing, printed matter, telephones, and moving pictures, there is still considerable diversity in communities of different sizes and different types.

SUMMARY

This chapter has treated the distinctive social characteristics of modern communities, with special reference to the American scene. Cities vary according to primary economic function, more so than in the past due principally to increasing specialization. Also, great differences exist between cities in the matter of size, differences which are reflected in important variations in social traits. The big cities have a higher standard of living, and more numerous and efficient social services, than do the smaller places. On the contrary, family life in the largest cities suffers by comparison with that of the smaller centers. The decline of the family is represented by fewer marriages, smaller families, and less home ownership.

On farms the family is very important because it is the unit of production. Under the circumstances it is economically advantageous to marry and have children, for their labor is useful on farms. In the city, on the contrary, factory production, child labor laws, and compulsory education laws make marriage and parenthood less attractive. The city does not produce enough children to sustain itself. The physical environment of the city contributes to this result also, since it is not as suitable for the rearing of children as is the country.

The city is the most artificial environment in which man has yet lived. The indoor sedentary life contrasts sharply with the life of physical exertion in the outdoors which man lived for hundreds of thousands of years. New to human experience too are the great size, the congestion, and the marked heterogeneity of the population of the metropolis. That man has not yet adjusted himself as satisfactorily to this new environment as he has to the country is indicated by such evidence as the higher urban death, crime, suicide, and insanity rates.

Farm and city must however be seen in the light of social change. The conditions of rural life are being altered rapidly, what with the mechanization of agriculture and the penetration of urban folkways. As machines come to play a more prominent part in agriculture, and culture originating in the city is diffused to the country, the two types of area tend to become more and more alike.

Despite this increasing similarity, no identity is foreseen for the near future; hence the distinction between the rural and urban way of life

has continuing significance. It is noted, too, that the farm is much older, man having lived in cities only a relatively short time. There is evidence that increasing experience with urban life brings improved adjustment to it. It is probably true that it is possible to cancel most of the city's deficiencies, given sufficient time, effort, and money.

QUESTIONS FOR DISCUSSION

1. Why are the social characteristics of villages more like those of cities than like those of farms? Is this similarity true for all characteristics?
2. What evidence is there that country people are becoming more like city people? Are any new differences also developing?
3. In what ways is the standard of living higher in the metropolis than on farms? In what ways may the reverse be true?
4. What problems are created by the differences in social services available in different types of communities? Cite illustrations.
5. What types of rural communities are there? Which type is the most recent?
6. Why is there an excess of young men on farms? Is this fact of any importance?
7. Nearly nine tenths of all ministers have a rural church as their first pastorate. What is the significance of this?
8. Into what general types may modern cities be classified? What is responsible for such a variety of types?
9. Why do the social characteristics of cities vary according to the size of the city?
10. What warrant is there for saying that the modern city is the most artificial environment in which man has ever lived?
11. In what type of community would it be most desirable for college graduates going into the professions to get located? Why?
12. The suicide rate increases with the size of the community, then shows a notable decline for cities of 500,000 and above. How would you account for this?
13. Why was the Indian referred to in the chapter more impressed by crowds in San Francisco than by skyscrapers?

14. How do the advantages of anonymity afforded by city life compare with the disadvantages?
15. "Given sufficient time, effort, and money, it is possible to cancel most of the city's deficiencies." Do you agree? Justify your position.

TOPICS FOR REPORTS

1. Changes in rural-urban death rates, 1900 to the present.
2. Urban adjustments of migrants from rural areas.
3. Urban-rural personality differences.
4. A comparative study of European and American rural life.
5. A comparative study of village life in different sections of the United States.
6. A comparative study of the social characteristics of a large and small city.
7. Selective factors in rural-urban migration.
8. Effect of modern communication and transportation on rural-urban differences.

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PART VI

SOCIAL INSTITUTIONS

AS DISCUSSED in the preceding section, the community is an organization of a group occupying a limited territory. The community itself is not an organization for any single purpose, but a collection of special institutions. Within the community are many different social institutions, such as the church, family, government, and business. The organization of a community consists of the interrelationships among the various social institutions which are included in it.

Social institutions may exist entirely within a single community, but this is not necessarily the case. Even in the hunting periods there were social institutions that were bigger than the local community. One was the clan, which brought together members from many different village communities for co-operative, recreational, religious, or military activities. But in general the village in those times was the whole of which the different social institutions were the parts.

With improvement in transportation facilities, various social institutions have grown to the point where they extend beyond the village and the city. One of the first of these far-reaching institutions was government, especially the type needed for war. The state early became an institution including many communities. Later, organized religion, utilizing the better communication facilities, was extended over a wide area. The same is true for many phases of modern economic organization. Many associations are now national and international in scope. In a sense, then, the diffusion of institutions may be said to extend the limits of the community. As institutions develop, local communities are supple-

mented by regional and national communities. There is an intimate and inseparable connection between the community and its institutions. In the chapters which follow, the institutions which are the heart of social life will be considered after a brief discussion of certain general aspects of social organization itself.

XVIII. THE ORGANIZATION OF SOCIETY

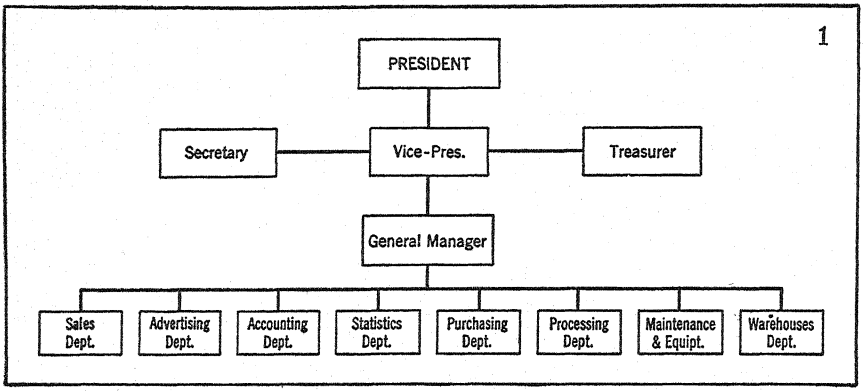
Social Institutions

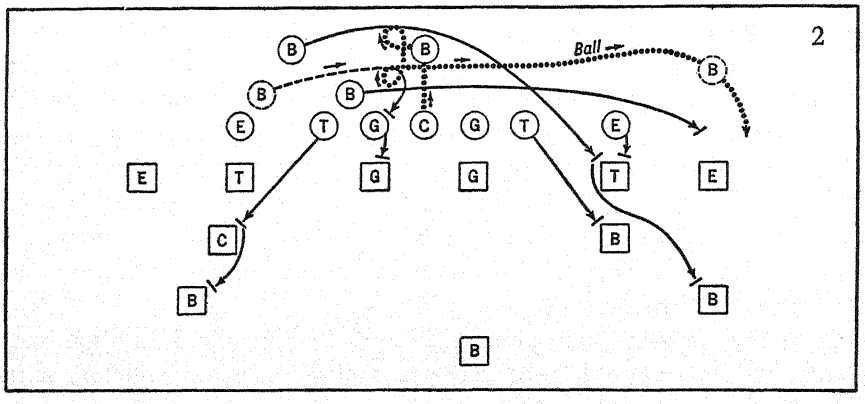
ORGANIZATION is an effective group device for getting something done. If the problem is for eleven men to carry a ball from the center of a field to one end of it against the opposition of an equal number of men, certainly a good solution is to organize the men as ball carriers and blockers. They make better headway in such manner than if they tried to rush forward without any plan or organization. Indeed, it may be said that if x is the amount of achievement of one individual, then 100 individuals properly organized will not accomplish just 100 x. The mathematics seems irrefutable, but this is a problem in sociology. If mathematics is compounded with sociology by organizing the 100 individuals, the result may be several times 100 x.

Collective behavior, if organized, is more effective than if unorganized. Sometimes unorganized mobs may accomplish their aims quickly, as in flight from a burning building; but usually the gain in such spontaneous action is due to the power of the stimulus and the urge for action, rather than to the absence of organization. Organization under a leader and with adequate direction will facilitate the evacuation of a building. The effectiveness of organization is well recognized by military leaders, by labor unionists, by political parties, by propaganda agencies, and by the thousands of special-purpose associations that exist in modern society.

THE NATURE OF SOCIAL ORGANIZATION

Much but not all social organization is the result of conscious effort. Many organizations exist without having been consciously planned for any purpose. That a high degree of organization can grow up unconsciously is illustrated by the grammar of language. Many people do not even know that they have a grammar. In any case, certainly, the grammar of a language is unplanned. So, too, the institution of the family grew up without any conscious planning. Family organization is quite elaborate among some peoples who are conscious of its structure,





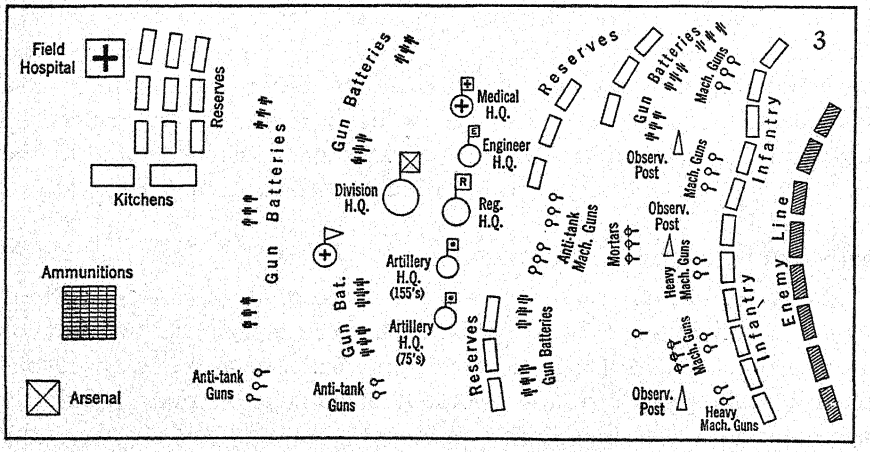


FIGURE 95. PATTERNS OF ORGANIZATION

These charts illustrate how effectively people can operate under adequate organization. 1. Organization of a corporation. 2. Organization of a football play. 3. Army organization on battlefield.

but it was not planned for a purpose as was the League of Nations. Sumner was one of the first to emphasize this distinction between deliberately planned social institutions and those which have grown up slowly and unconsciously. The former he termed enacted, and the latter, crescive.[1]

If a handful of iron filings are thrown on a sheet of paper, they assume no pattern; but if a horseshoe magnet is first placed under the paper, the iron filings will cluster in a definite pattern about the invisible magnetized points of the horseshoe. So it is with the members of a group. They collect in a house, around a table, in sleeping quarters, or near hunting and fishing grounds. The activities of sleeping, food-gathering, tool-making, and of trading are not just done once, but are repeated often, and the ways deemed best are selected. The participating individuals became organized through the repetition of collective action. As the magnet causes the iron filings to take form in a pattern, so do the common wishes of mankind cause consequent activities to assume social patterns. Social institutions are organized, established ways of satisfying certain basic human needs.

Not all systematized human activities, however, are called social institutions. Many are classed merely as group habits. Habits such as ways of greeting or eating are simply folkways.[2] Of the vast amount of social behavior, only the most important group habits which are found generally in a large number of cultures, and which have existed through long periods of time, are by usage referred to as social institutions. Examples are the church, the family, and the state. These institutions are concerned with satisfying fundamental group needs such as security, food and shelter, sex expression, and the training of the young.

In popular usage today, a local boys' club may be referred to as a social institution, but to do so is an error. A club is not an institution, but an agency or association, a minor type of social organization. Associations, in contrast to social institutions, are less universal and less permanent group organizations. They are concerned, generally, with fewer and more specialized functions and are adjudged less important by society. Fraternal orders, athletic clubs, and professional societies are associations. Often associations are subsidiary agencies which help to carry out the program of a major social institution. Our religious institution, for instance, is served by many associations, like the Young Men's Christian Association, the Young Men's Hebrew Association, and the Knights of

[1] WILLIAM G. SUMNER, FOLKWAYS (Boston: Ginn and Company, 1906), pp. 53–54.

[2] Cf. Chapter II, "The Rôle of Culture."

Columbus. A particular church body or congregation may also be regarded as an association. Such associations are thus seen to be the instrumentalities through which social institutions discharge their functions. In the latter part of this chapter, associations are given further consideration.

Institutional structure. As has been suggested, social institutions are devices for getting certain things done. It follows that institutions are important principally on account of their activities or functions. This point will be developed more fully below. Even so we must not lose sight of the fact that institutional functions are carried out by an organization of some sort. The structure of a social institution is thus of some significance also. This point was recognized by Sumner, who viewed the structure of all social institutions as consisting of personnel, equipment, organization, and ritual. By personnel he meant the qualified members of the group; that is, those whom the group recognizes as belonging, as opposed to "outsiders." The idea of "legitimacy," while generally used in connection with the family, actually holds for other institutions as well, for all institutions distinguish between those who are legitimate members and those who are not. By equipment, Sumner meant the apparatus through which the members function — all the possessions of the group, both material and non-material. In the case of the family, for example, the material equipment might include the land, the house, and the household equipment; the material possessions of the family differ in different cultures, land for example being regarded as a community, not a family possession in many primitive cultures. The non-material possessions of the family might include such things as the family name, reputation, status, cult and secrets. The organization of an institution is the manner in which its personnel and equipment are arranged. When, for example, the organization is such that the family is ruled by males, it is referred to as patriarchal; a matriarchal organization is one in which the women are dominant. Finally, the ritual of a social institution consists of its customs, the rules and ceremonies by which the institutional behavior of individuals is regulated. There is, for instance, a definite ritual for forming a family: the wedding or marriage ceremony; and there is a specified ritual for dissolving the union: divorce.

More recently Sumner's analysis has been carried a step further by Chapin,[1] who breaks up certain aspects of institutional structure into four

[1] F. STUART CHAPIN, CONTEMPORARY AMERICAN INSTITUTIONS, p. 16. Reprinted by permission of Harper and Brothers.

type parts, as shown in Table 27, illustrating their application to four principal social institutions.

TABLE 27. TYPE PARTS OF THE STRUCTURE OF THE MAJOR SOCIAL INSTITUTIONS

Four Type Parts	Family	Church	Government	Business
I. Attitudes and behavior patterns	Affection Love Loyalty Respect	Reverence Loyalty Fear Devotion	Subordination Co-operativeness Fear Obedience	Workmanship Thrift Co-operation Loyalty
II. Symbolic culture traits, "symbols"	Marriage ring Crest Coat of arms Heirloom	Cross Ikon Shrine Altar	Flag Seal Emblem Anthem	Trade-mark Patent sign Emblem
III. Utilitarian culture traits (real property)	Home Dwelling Furniture	Church edifice Cathedral Temple	Public buildings Public works	Shop Store Factory Office
IV. Code of oral or written specifications	Marriage license Will Genealogy Mores	Creed Doctrine Bible Hymn	Charter Constitution Treaties Laws Ordinances	Contracts Licenses Franchises Articles of Incorporation

This analysis has the merit of making possible a description of institutional parts in objective terms. The attitudes of individuals are subject to measurement by scales constructed for the purpose; symbolic culture traits can be enumerated; utilitarian culture traits can be described in objective terms of size, number, and value in dollars; and codes are subject to legal analysis and interpretation. It would be desirable to extend this type of analysis to include all the aspects of institutional structure.

Institutional functions. The importance of a given social structure is in what it does, what functions it performs. The reader has probably been a member of some committee or club that has an organization, yet does very little. Many communities are filled with such dead clubs that continue to exist on paper, making a sad picture. The importance of organization, then, lies in its functions and in the type of structure which best permits the performance of these desired functions.

It is to be noted that each principal social institution is organized to perform some central function. Agriculture is the production of food and fibers from the soil. The family exists for the rearing of children. The state is organized to govern, and the church is essentially an agency for

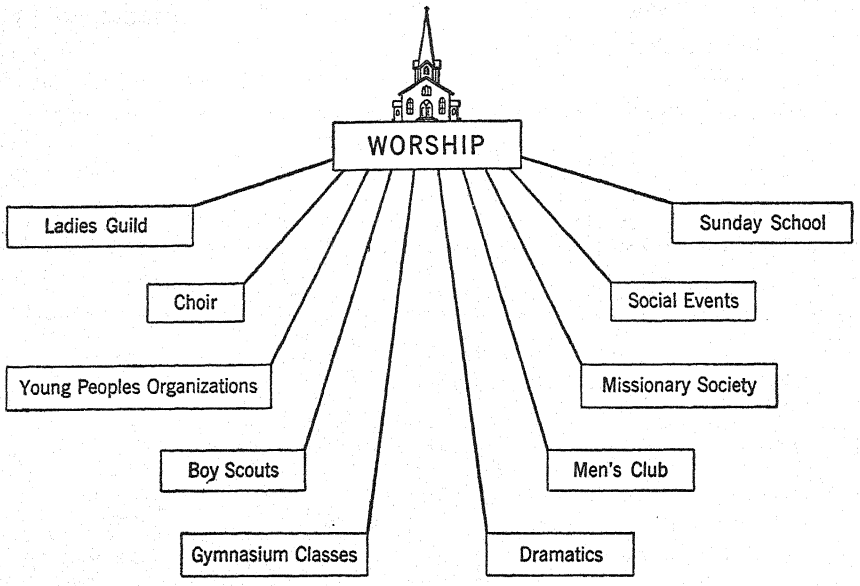


FIGURE 96. ORGANIZATION OF THE CHURCH

The church, a major institution, represents a cluster of functions, not just one. The major function of worship is quite generally found in different cultures and regions, but the correlated functions vary from place to place and from time to time.

worship. It is the central function of an institution that defines and distinguishes it in every culture and in every age.

Human activities are numerous and greatly varied. Wishes are almost unlimited. If only a single function were performed by every social structure, a great many institutions indeed would be required to satisfy human needs. While it is true that a social structure may be organized to perform one central function, it is more common for the great social institutions to perform a variety of functions. Thus, the church may be an institution for worship, yet it may regulate morals, undertake teaching, render philanthropic services, practice medicine, or engage in politics. Colleges not only furnish schoolroom instruction, but develop athletics, conduct debating contests, foster club life, develop promotional ability and executive skills through extracurricular activities, and build personalities. All these things, and others, they may do at the same time.

Basic needs and the principal institutions. This airplane view of how collective behavior becomes organized into institutions and associations needs to be supplemented by some further consideration of the functions

of the great social institutions. Man has a few basic needs, such as food, and the production and rearing of children. It is natural then to find the great social institutions throughout all time centered around such basic needs. One cluster of important social institutions is organized around the economic functions. In modern society the industrial and financial institutions and agriculture are illustrations. In the early beginnings of culture the economic organizations were developed around food-gathering, hunting, and fishing. The preparation of the food, at least in its final steps, was generally the function of the family. The nature of the food organization was in part determined by the type of food. Hunting the caribou, the buffalo, or any other large animals living in herds often necessitated large hunting parties. Later, as technology developed, property in personal possessions such as clothing, jewelry, furniture, tools, boats, horses, and cattle became quite extensive. Many rules regarding the acquisition and disposition of property developed, just as before there were rules for the acquisition and disposition of food. With the development of trade and money, economic activities became more elaborate, and the growth of specialization produced a great division of labor among the economic institutions.

A second group of social institutions are those that center about sex. The family is the outstanding institution of this type. But the labor of men and women is institutionalized in all cultures in the economic organizations into a division of labor of the sexes. This division of labor is not always the same, except that women have the special care of the little children, while men hunt wild game and make up the fighting forces in war. Very widespread, too, are male associations, which often maintain a separate clubhouse. The family, once organized on the basis of sex, leads outward into kinship organizations such as the clan, which serves among other things to determine who shall marry whom, and undoubtedly regulates inbreeding.

A third function around which social organization occurs is belief. Man's ideas of the world and of nature are not all derived from scientific knowledge, and his beliefs about these matters become subjects of worship or manipulation. These attitudes can be seen in various magical or religious practices which sometimes become highly organized. The belief in higher powers becomes closely related to moral conduct and to many types of behavior. Moreover, there cluster around these beliefs ceremonies of one kind or another at various seasons of the year, or at certain events of importance such as birth, marriage, death, and war. In

a word, the attitudes of worship become interwoven with a wide range of phenomena.

The function of looking out for the welfare of the whole group is a fourth center of social organization. In modern times this function has led to the state. The welfare of a people as a whole is much at stake in war, and war has played an important rôle in the development of the state. In very early times among small groups, war was often in the nature of raiding parties, and the organization of the state around the leadership of a strong man was relatively informal. Where peoples were conquered or slaves were taken, the organization was more thoroughgoing. At times, too, the local family groups that lived together in the small communities and spoke a common language or had similar customs would come together for purposes of religion or recreation, thus creating the outline of a larger group organization.

Again, the function of maintaining the common welfare involves the administration of justice, protecting the weak from the strong, and punishing those who disturb group harmony. The state, then, becomes organized to support the mores. The scope of the state is affected not inconsiderably by the development of transportation and communication facilities which increase the number and variety of peoples who may be successfully welded into a single political unit.

Here, then, are four great clusters of functions which serve as the basis of important social institutions found in almost all cultures. There are, to be sure, other social institutions, such as those pertaining to education, science, communication, recreation, art, and health, but limitations of space preclude discussion of them here.

Associations

The major social institutions are very widely distributed. No culture at any time has been without the family. None has existed without an economic organization, though it may be nearly the same as the family. Most societies have some sort of government, and all have religion, even if in some cultures it is not highly organized socially. These four social institutions are centered around the fundamental human needs of sex, food, power, and worship.

When the community is very small, with only twenty or thirty persons, the family is the most obvious social institution and may be also the only economic institution. Organized worship is more likely to be identified

with the community, while power may be split between community and family. Additional functions such as the recreational and educational may also be performed by these same major institutions.

In time, each of the four major functions acquires a separate and special institution, as family, state, church, and manufacturing unit. Certain of these institutions, moreover, become complex and differentiated into a variety of types. For instance, industry may become diversified into many different kinds in a given culture area. So, too, there may be several branches of government, such as chief executive, council, and judiciary. The church may also have different kinds of priests and worshiping groups.

In historical times, the social institutions have become diversified into a great number of minor groups called associations. There are associations in preliterate societies; the Plains Indians had quite a development of age societies. "The Hidatsa system [involves] an age classification by which the male population is divided into approximately ten classes of successively higher degree, each with its distinctive dance, songs, paraphernalia and privileges." [1] There are also men's eating clubs, and many primitive peoples have a men's clubhouse which is largely recreational in purpose. Likewise, among the warlike tribes there are military clubs, which are mainly prestige organizations. But the multiplicity of associations is a phenomenon of modern times, particularly of the last hundred years.

THE DEVELOPMENT OF ASSOCIATIONS

The marked increase in the number of associations in recent times is largely the result of the great growth of culture. The impressive expansion of the social heritage in modern times has meant a considerable increase in the number and variety of man's social activities. For example, there is at the present time an unprecedented variety of recreational pursuits, thanks to the invention of new games and types of recreational organization. This situation, in turn, calls for marked specialization, much like that which has occurred in economic production. At one time there was a jack-of-all-trades, who later became a master of one. But now there are few masters of even one trade; in a modern garment factory a tailor is now replaced by thirty specialists, such as cutters and vest makers.

Likewise, recreational activities are highly specialized. A chess club exists for practically one function: the playing of chess; and a bridge club

[1] ROBERT H. LOWIE, PRIMITIVE SOCIETY (New York: Boni and Liveright, 1920), p. 324.

for instruction and play in the game of bridge. Though an association like the Y.M.C.A. may have religious, athletic, recreational, and educational functions, associations are usually more highly specialized. In this respect associations differ from the larger social institutions, which have more varied and numerous functions.

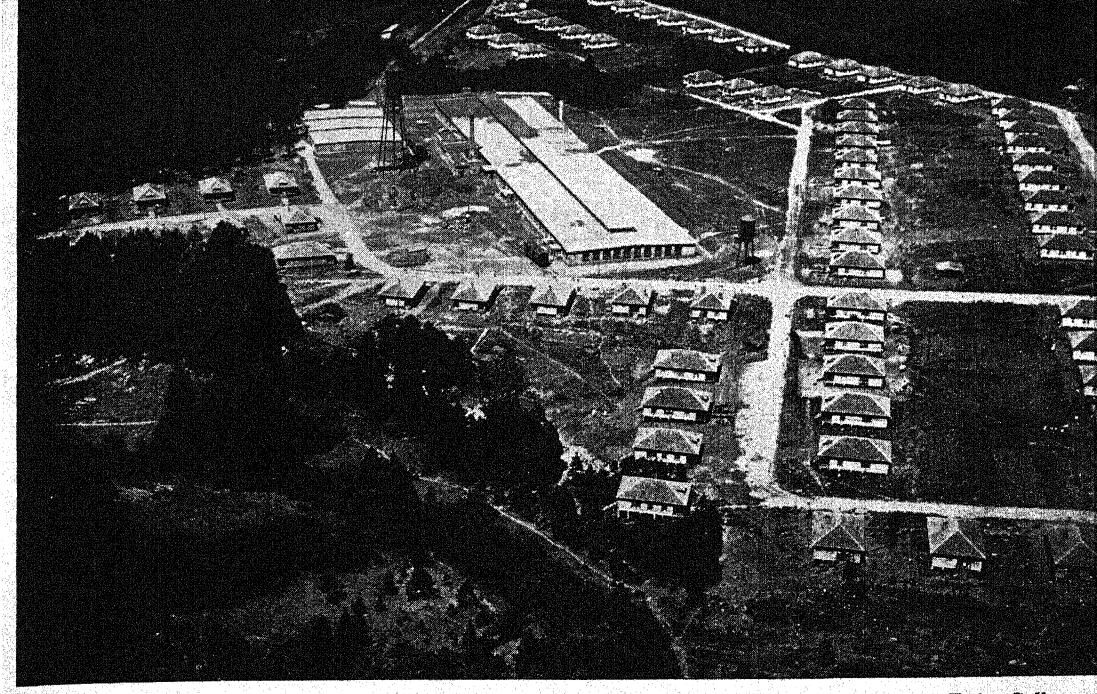
Specialization and differentiation, common in modern society, are furthered by a number of social factors. One is large numbers. There is not much opportunity to specialize in a community of, say, twenty persons, such as exists among some primitive hunters, particularly if the community has little connection with other groups. Thus transportation and communication are additional factors that encourage specialization. The remarkable development of transportation and communication in modern times has played a commanding part in facilitating specialization.

Associations increase also because they are efficient. Specialization means efficiency. In a garment factory today a worker using modern methods and machinery can make more buttonholes, and better ones, than an unspecialized tailor. In the same way, a tennis club promotes skill in tennis better than it can be promoted as a home activity; hence the growth of tennis associations. As was pointed out in the opening paragraph of this chapter, a given number of persons may often realize their objective more effectively if they are organized than if they are not. An association is an invention for organizing social activity. As in the case of all inventions, the more useful and effective associations survive, and those that are ineffective die out.

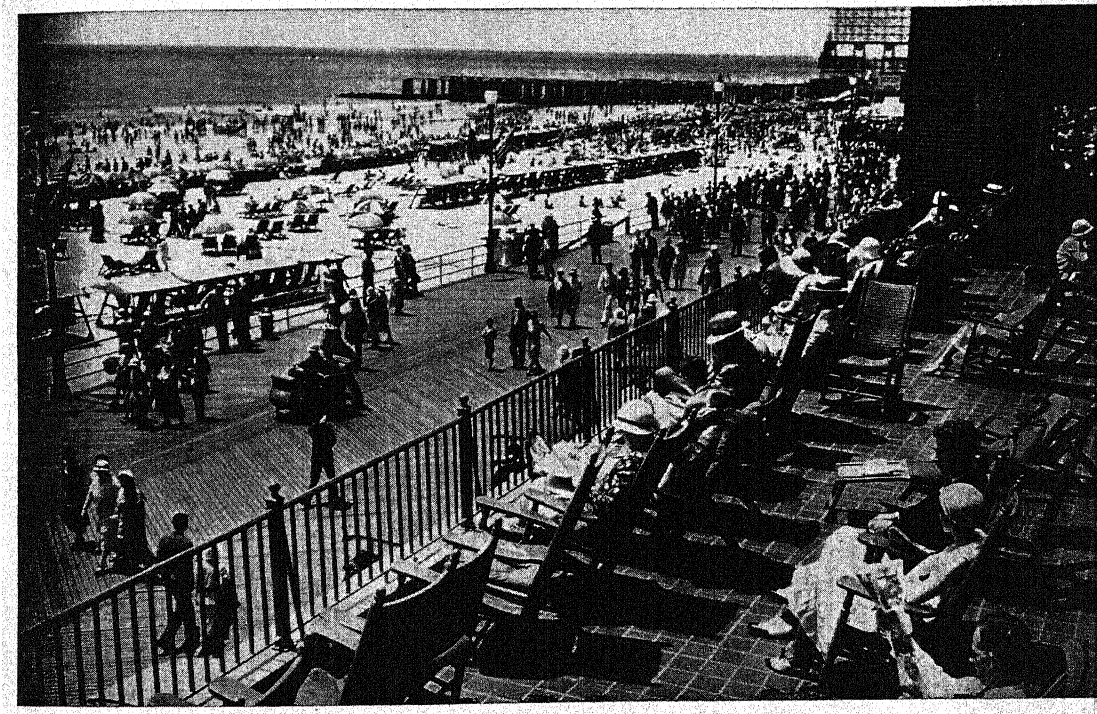
In the United States the growth of associations has been particularly noteworthy. De Tocqueville [1] commented on it in his book about America in the eighteen-sixties.

> In no country in the world has the principle of association been more successfully used, or applied to a greater multitude of objects, than in America. . . .
>
> Americans of all ages, all conditions, and all dispositions, constantly form associations. They have not only commercial and manufacturing companies, in which all take part, but associations of a thousand other kinds — religious, moral, serious, futile, general or restricted, enormous or diminutive. The Americans make associations to give entertainments, to found seminaries, to build inns, to construct churches, to diffuse books, to send missionaries to the antipodes; they found in this manner

[1] ALEXIS DE TOCQUEVILLE, DEMOCRACY IN AMERICA (Cambridge: Sever and Francis, 1862), I, 216; and II, 128. For a similar comment, see JAMES BRYCE, THE AMERICAN COMMONWEALTH (New York: The Macmillan Company, 1911), II, p. 281.



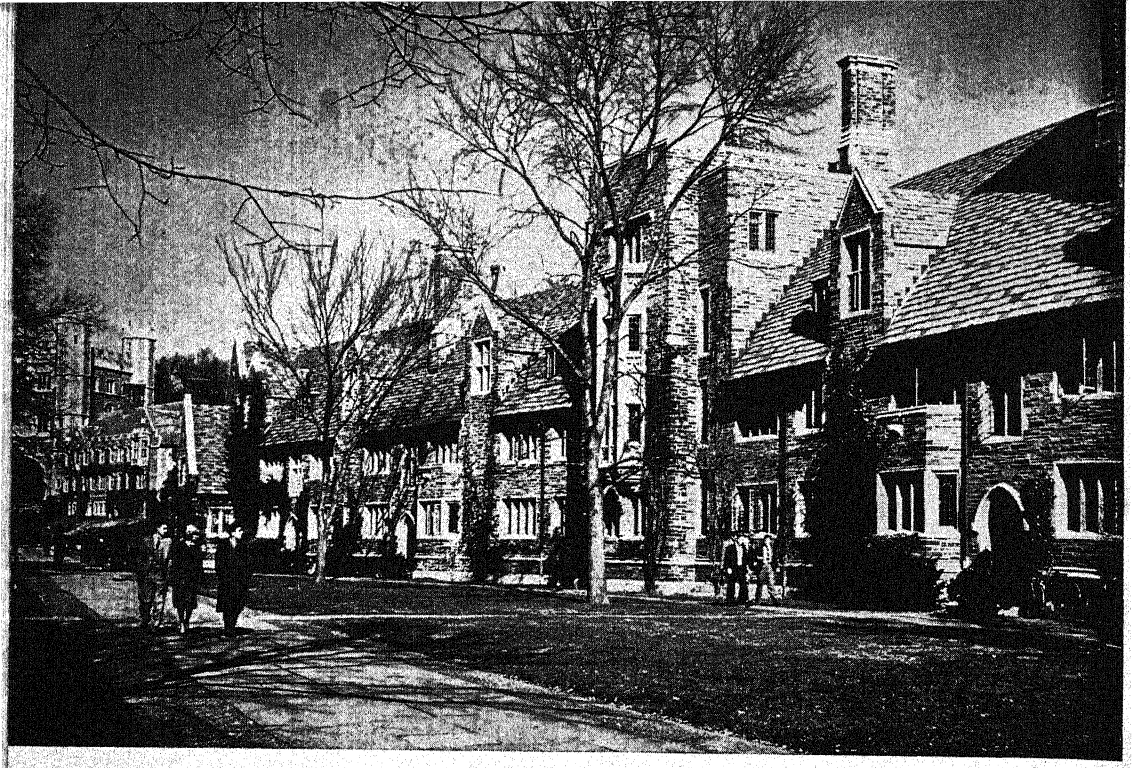
Ewing Galloway



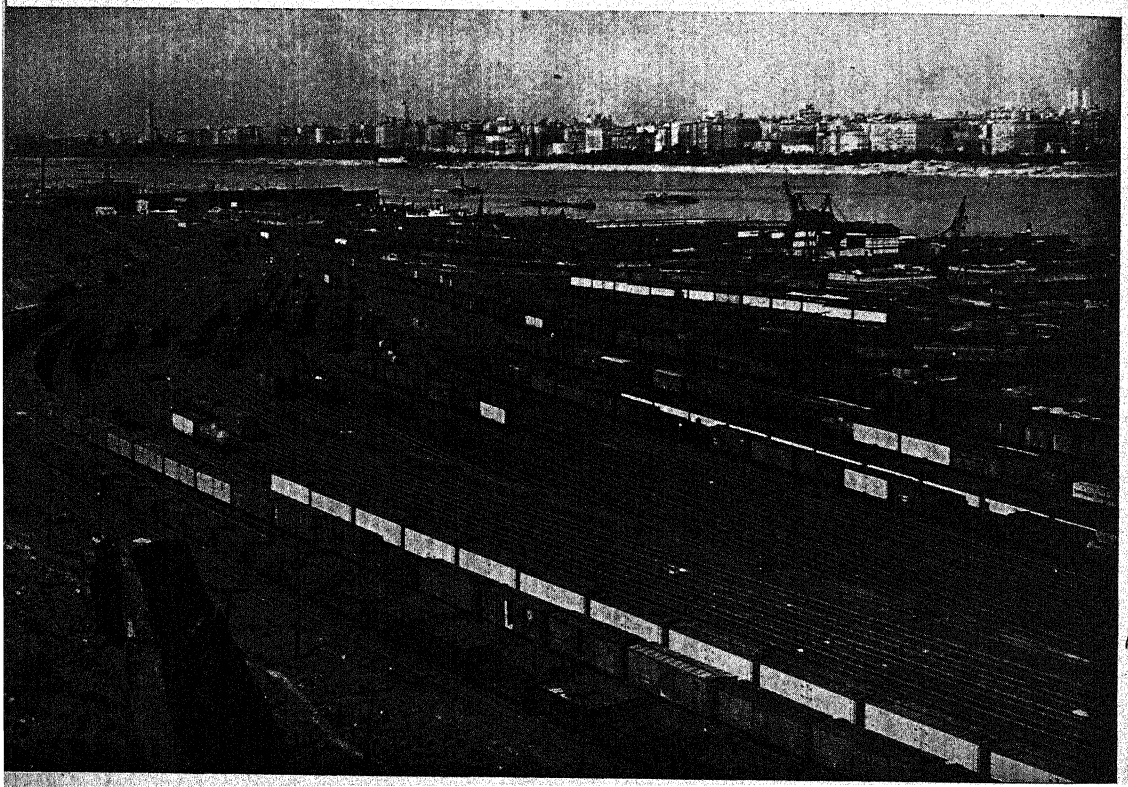
Ewing Galloway

PLATE 8. TYPES OF SPECIALIZATION IN CITIES

Cities are becoming specialized, like factories. These specializations center around colleges, governmental activities, health, recreation, trade, transportation, industry and religion. (See



Ewing Galloway



> hospitals, prisons, and schools. If it be proposed to inculcate some truth, or to foster some feeling, by the encouragement of a great example, they form a society. Wherever, at the head of some new undertaking, you see the government in France, or a man of rank in England, in the United States you will be sure to find an association.

During the latter part of the nineteenth century in the United States the tendency to form associations became a general mania. Thousands of new societies were founded, and it was a rare American who was not affiliated with four or five organizations.[1] The French visitor to the United States today is at once struck with the phenomenon of women's clubs, which do not exist in France. The United States is the land of conventions, national or regional meetings of associations. New York City alone had over seven hundred conventions in 1930.[2]

The following list gives an idea of the variety of associations existing in the United States.

athletic clubs
garden clubs
music societies
debutante societies
bridge clubs
hobby societies
fraternal organizations

schools
forums
parent-teacher associations
literary societies
art societies
scientific societies

missionary societies
young people's religious organizations
charity societies

social work organizations
civic organizations
organized reform movements

public administration organizations
military organizations
patriotic societies
political parties

trade associations
labor unions
occupational societies
credit unions
co-operatives
farm organizations

women's organizations
youth groups
men's societies

This list is illustrative but not comprehensive even as to type. Each type, moreover, has many different subtypes. There are scores of sub-

[1] CHARLES and MARY BEARD, THE RISE OF AMERICAN CIVILIZATION (New York: The Macmillan Company, 1930), II, 730.

[2] MALCOLM WILLEY and STUART RICE, COMMUNICATION AGENCIES AND SOCIAL LIFE (New York: McGraw-Hill Book Company, 1933), p. 74.

types of women's organizations and hundreds of different units.[1] There must be hundreds of different scientific societies. In Chicago it is estimated that there are almost 15,000 different associations.[2]

THE DISTRIBUTION OF ASSOCIATIONS

Associations are less universal and more specialized than institutions, and hence show some adaptation to the social classes. The veterans' organizations include members from all ranks of society, for the reason that war is no discriminator of persons in modern times. But many clubs and societies are exclusive. This is true of many recreational societies; birds of a feather flock together. Other special-purpose associations are likely to recruit members from the same social class, as for instance trade unions, scientific societies, and real estate owners' associations.

Associations are in general less common among the poor than among the rich. Money as well as time is a restricting factor. Lundberg [3] found that in wealthy Westchester County, New York, during the nineteen-twenties, women with incomes under $5000 belonged to an average of 1.9 clubs. Where the income was between $5000 and $10,000, the number of clubs was 2.7; and over $10,000, 2.9. In Westchester 50 per cent of the women are without club membership, while in a neighboring poorer suburb, 76 per cent are members of no clubs. The southern states have fewer associations than do other sections of our country and the South also has the lowest income of any section of the United States. The chief associations of the laboring classes are trade unions and fraternal orders. In Middletown, 43 per cent of the working-class men were without associational affiliations, as compared with 2.6 per cent of the businessmen.[4] Lindstrom [5] found that in southern Illinois 72 per cent of the farm laborers were not members of any association, compared with 19 per cent of farm tenants and 13 per cent of farm owners.

Some associations, such as the B.P.O.E. (Elks), are rarely highly de-

[1] SOPHONISBA P. BRECKINRIDGE, WOMEN IN THE TWENTIETH CENTURY (New York: McGraw-Hill Book Company, 1933).

[2] Estimate by Herbert Goldhamer (Stanford University), who has been collecting statistics on voluntary associations.

[3] GEORGE LUNDBERG, MIRRA KOMAROVSKY, and MARY ALICE MCINERNY, LEISURE; A SUBURBAN STUDY (New York: Columbia University Press, 1934).

[4] ROBERT and HELEN LYND, MIDDLETOWN (New York: Harcourt, Brace and Company, 1929), p. 528.

[5] D. H. LINDSTROM, "FORCES AFFECTING PARTICIPATION OF FARM PEOPLE IN RURAL ORGANIZATION," UNIVERSITY OF ILLINOIS BULLETIN 423, p. 105.

veloped in the big cities, though in large towns and small cities they have a strong membership. In general, the more specialized the association, the greater the concentration of membership in the big cities. The American Bar Association offers an example. On the other hand, unspecialized women's clubs have a larger proportion of members in towns and small cities. The history of associations shows that a majority of them were first organized in larger places and later diffused to smaller places.[1] There are, of course, special rural organizations. Particularly to be noted are such youth-serving associations as the 4–H clubs and Hi–Y groups, and the socio-economic Farm Bureau, Grange, and Home Demonstration groups.[2]

THE INTERRELATIONS OF ASSOCIATIONS AND SOCIAL INSTITUTIONS

As indicated above, associations are often closely related to the major social institutions. The type of correlation varies, however. In some cases, as the major institutions become more complex, functions are taken over by various associations, which may then be regarded as service agencies supporting the larger institutions. For example, the Federal Council of Churches of Christ in America, the Home Missions Councils, the National Conference of Jews and Christians, the Y.M.C.A., the Y.M.H.A., and the Knights of Columbus are all associations that extend the influence of the church. On the other hand, such groups as the Communist Party and the American Association for the Advancement of Atheism seek to limit the influence of the church. In relation to government, particularly, we have a considerable number of associations which aim to exert an influence on political policies. Some groups, like the Anti-Saloon League and the League of Women Voters, are organized chiefly for the purpose of affecting political action. Others, like the trade unions and the trade associations have non-political activities as their primary functions, but maintain lobbies to influence government. Other associations are related in still other ways to various social institutions. In the remaining chapters of this section something more will be shown of the ways in which associations are tied in with the great economic, governmental, religious and family institutions. It is to the consideration of these major social institutions that we now turn our attention.

[1] HERBERT GOLDHAMER (Stanford University), unpublished manuscript.

[2] EDMUND DE S. BRUNNER and J. H. KOLB, RURAL SOCIAL TRENDS (New York: McGraw-Hill Book Company, 1933).

QUESTIONS FOR DISCUSSION

1. What is meant by the term, organization? What are the advantages of social organization? Are there any disadvantages?
2. When is a community over-organized? Are there too many organized groups on the average college campus?
3. How can the value of effective organization be illustrated in the field of politics? Education?
4. What are social institutions? Are all systematized human activities social institutions? Elaborate.
5. Is the church a crescive or an enacted institution? Why?
6. If a social institution has many functions, how is it to be distinguished from other institutions which may exercise some of the same functions?
7. Which are more numerous, social institutions, or associations? Why?
8. What is the relation between a rapidly changing culture and human needs?
9. In what fields has the growth of associations been particularly pronounced in recent times?
10. What associations in our society are organized with reference to the institution of the family? What is the type of relationship?

TOPICS FOR REPORTS

1. The application of the Chapin four type-part analysis to the educational institution.
2. A study of the functions carried on by a small college.
3. Charles H. Cooley's theory of social organization.
4. A comparison of associations in preliterate and modern society.
5. The developing organization of social work.
6. Make a study of an association which, though powerful in the nineteen-twenties, is weak today, and account for its decline.

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A rather general account of the major social institutions, with special emphasis on their functions and present-day adequacy.

CHAPIN, F. S., CONTEMPORARY AMERICAN INSTITUTIONS. New York: Harper and Brothers, 1935.

A re-examination of the structure and functions of some contemporary American institutions in the light of research. Contains interesting data on local government, politics, and business. Valuable for its effort to frame an operational definition of social institutions.

COOLEY, C. H., SOCIAL ORGANIZATION, Part V, "INSTITUTIONS."

A penetrating interpretation of the interrelationships of institutions and the individual. Abstract and somewhat philosophical.

COOLEY, C. H., SOCIAL PROCESS. New York: Charles Scribner's Sons, 1922.

Chapter II contains the classic treatment of organization as the unconscious co-ordination of adaptive behavior.

HERTZLER, J. O., SOCIAL INSTITUTIONS. New York: McGraw-Hill Book Company, 1929.

A brief, general treatment. The approach is theoretical, with little concrete data or practical application.

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An able analysis of the psychological foundations of social institutions. Peculiarly good for its discussion of such pivotal factors in the non-material culture as the number system (chapter V), the time system (chapter VI), and standards of precision (chapter VII).

MCIVER, R. M., SOCIETY: A TEXTBOOK OF SOCIOLOGY. New York: Farrar and Rinehart, 1937.

This volume is a revision of the author's earlier work, SOCIETY: ITS STRUCTURE AND CHANGES. *An able analysis,*

well written but abstract, of social organization. The definitions of terms follow English rather than American usage.

PANUNZIO, C., MAJOR SOCIAL INSTITUTIONS. New York: The Macmillan Company, 1939.

A descriptive and analytic account of major social institutions of the western world, with attention to their origins and development, but with primary emphasis on the contemporary phases. Pages 522–68 consist of a comprehensive glossary of sociological concepts.

SUMNER, W. G., and A. G. KELLER, THE SCIENCE OF SOCIETY, vol. I, Part I.

A distinguished analysis of the rôle of social institutions in adjusting man to his surroundings. Introduces the trifold classification of social institutions, namely, institutions of societal self-maintenance, self-perpetuation, and self-gratification, which are then developed in the subsequent chapters of this volume and volumes II and III of the series. The final volume, IV, is a case book.

XIX. ECONOMIC INSTITUTIONS

THE ACTIVITIES of man in relation to food and property constitute the economic institutions. They comprise a large part of our culture today, and include the dozens of types of agriculture, all the varieties of factory and handicraft production, a large part of passenger and freight traffic, much use of the telephone and telegraph, the distributive system through stores (wholesale, retail, chain, independent, and co-operative), and the credit and money institutions, such as banks and investment trusts. These may be owned or regulated by individuals, partnerships, corporations; by competing or monopolistic companies; by state, city or commission; or by co-operative ownership with government or private capital. It is clear that a vast deal of our thought and activity go into the economic functions. So important and so complex are they that a separate science, economics, has grown up to deal with them.

There are many grave questions about our economic organization today. One of these concerns the recurring crises which result in business depressions and unemployment. Another pertains to the efficiency and control of private capitalism. Still another has to do with the relation of government to the economic institutions. These questions are more properly the subject matter of economics than of sociology. But since the organization of economic life is always a part of the general structure of the superorganic and is tied in with the other social institutions, study of economic institutions by sociologists often yields a better perspective and a more comprehensive picture than that given by a more specialized science. The major issues of economic organization cannot well be solved without an adequate account of the interrelations of economic institutions with other social institutions. It is also a function of sociology to study the development of different parts of the social heritage, that is, the various major social institutions, including the economic.

ECONOMIC ORIGINS

A social institution does not leave remains for the archeologists to dig up, as does the material culture with its chipped flints and carved ivory.

Therefore, it is not so easy to reconstruct the origins of economic organization. All the higher animals are concerned with getting food, which, with their nests, if such they have, is the only wealth they possess. Some wild animals, like cattle, get food in herds; others, like wolves, in small bands with a leader; while others collect food in family groups, as does the baboon. It is therefore practically certain that, during the long million or so years when man was evolving, his economic life centered almost exclusively about food. However, that portion of the human race which lived in very cold climates must also have been concerned from the first with making clothing.

We can make certain inferences about early economic activities from stone implements that have survived the passage of time. One other source of information is the economic life found among the simplest preliterate peoples. What is found in such primitive cultures shows us little of origins, since all preliterate cultures known to us are quite highly developed. But they do yield information about the development of economic life, and they also permit some inferences as to origins.[1]

FOOD GATHERERS AND HUNTERS

The anatomical analysis of man's foot and hand suggests that he once may have been a tree dweller, in which case his earliest economic activities consisted largely in searching for fruits, nuts, and green shoots. We find him first, as man, living in the food-gathering cultures. Here the general picture is one where the procuring of roots, fruits, berries, greens, grains and seeds is supplemented by some hunting and trapping of land and water animals. The proportion of food from animals and plants varies, but in general the proportion of plant food is large. In some of these cultures, however, the reliance on meat is preponderant; for instance, the Plains Indians depend mainly on the buffalo. Indeed, where animals are abundant, the technique of hunting becomes highly developed so that it may be desirable to separate the hunting cultures from the other food-gathering cultures which rely largely on plant food. The Hupa, for instance, live mainly on acorns.

Sex division of labor. An early organization in the procuring of food and its preparation is the division of labor between men and women. Men, and not women, are generally the hunters where hunting is an important source of food. Women are more often the gatherers of roots,

[1] See A. A. GOLDENWEISER, EARLY CIVILIZATION (New York: A. A. Knopf, 1922), and FRANZ BOAS, *et al.*, GENERAL ANTHROPOLOGY (Boston: D. C. Heath and Company, 1938), chap. VIII

berries, nuts, and grains. Sometimes there are exceptions and variations from one people to another. The division of labor between the two sexes is shown in Table 28 for a large number of peoples of different cultures. This table indicates that there are not many places where men and women share the same jobs; the occupational cleavage is fairly sharp.

The various hunting cultures are by no means entirely alike. The culture of the Andaman Islanders is very rudimentary in material goods, while that of some hunters of the North American Indians was very high. But there are many points in common. For one thing, hunting and gathering alone do not yield an abundant food supply throughout the year for peoples with limited means of travel and little development

TABLE 28. SEX SPECIALIZATION IN OCCUPATIONS *

	Males Exclusively	Males Predominantly	Males or Females	Females Predominantly	Females Exclusively
Pursuit of sea mammals	34	1	0	0	0
Hunting	166	13	0	0	0
Trapping	128	13	4	1	2
Fishing	98	34	19	3	4
Gathering shellfish	9	4	8	7	25
Gathering fruits, berries, nuts	12	3	15	13	63
Preservation of meat and fish	8	2	10	14	74
Gathering herbs, roots, and seeds	8	1	11	7	74
Cooking	5	1	9	28	158

* GEORGE P. MURDOCK, "COMPARATIVE DATA ON DIVISION OF LABOR BY SEX," JOURNAL OF SOCIAL FORCES, 15:551, May, 1937. The peoples included in the table are not all hunting peoples.

of food storage. Hence it is not surprising to find a requirement of one square mile to support a person, or, among some hunting peoples, even ten or twenty square miles or more. The hunting peoples do not generally live, of course, in single families, but in small communities or bands, of a score of individuals or a score or more of families.

The family and the community as economic institutions. The family is an important institution in both the production and consumption of goods. The wife ordinarily prepares the food, which the men, or the men and women of the family, bring in. However, the family is not the only producing and consuming organization. Some hunting, for instance that for the buffalo or caribou, is undertaken by parties of men larger than the number of men in a single family. The walrus and other big game are best hunted by groups of men also. The hunting parties may be away for weeks or months. The consuming organization is generally the family group, but even so on many occasions there are groups of eaters

much larger than the family unit, especially at festivals and ceremonies. Accordingly it may be seen that the community as well as the family, at times, becomes the producing and consuming unit.

In many areas the food, either plant or animal, may in the course of years become scarce, in which case the band moves a short distance to where the food appears to be more plentiful. The nature of the hunting life is often such as to make for a mobile group. This fact makes it difficult, no doubt, to develop housing, pottery, or other arts to any high degree.

Early capital goods. The capital goods of any hunting family or community are likely to be quite simple and meager compared with those of later cultures. But even so, hunters have, among other things, spears, throwing-sticks, blow-guns, snares, traps, harpoons, arrows, fish-hooks, boats, and disguises. Although the weapons used by any one group are not greatly varied, for all hunting cultures taken together the different styles are quite numerous, and the ingenuity shown in their construction is a testimony to the mentality and ability of the hunting peoples. For instance, in Africa the hunters of the ostrich will wear the skin of the ostrich with a stick in the neck of the bird to hold it up, in order to get close enough for the kill. In parts of America poisoned arrows in a blow-gun are used to kill birds. The arrows are blunted at the point in order not to stick in the wood of the trees and thus become lost. Sometimes a V-shaped fence is constructed and the animals driven into it so that they may be more readily slaughtered. The kinds of traps and snares for fish, birds, and big game seem almost unlimited in variety and suggest, in the manifold nature of their forms, the tools and small machines of today.

The origin of trade. The early primitive communities are self-sufficient economically, and hence do not depend upon trade. Moreover, the distance between settlements is often great and the means of transportation rudimentary. Those who have boats or who drive dogs hitched to sleds may travel considerable distances. But since in general the hunters do not have domesticated horses, the means of transportation do not favor much intertribal trade. Another obstacle to trade is the absence of a standard medium of exchange. Durable objects of an ornamental nature, such as jade or shells, seem to have a wide acceptance and occasionally assume the nature of money. Generally, however, trade is between neighboring tribes and the procedure is barter. The earliest trade results from differences in natural resources in particular areas, which occasion abundance or scarcity of desired commodities, such as

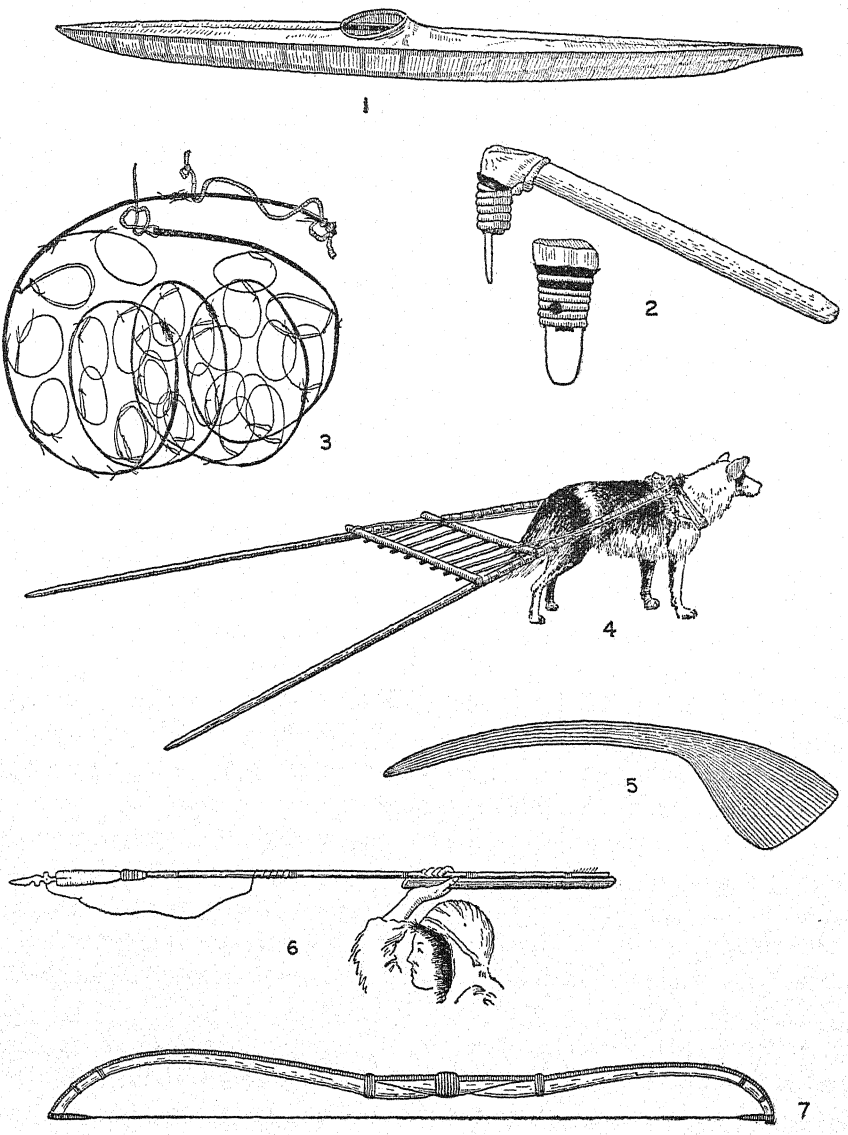


FIGURE 97. SOME CAPITAL GOODS OF THE HUNTING CULTURES

(1) Kyak; (2) adze; (3) trap for catching water fowl; (4) dog travois; (5) throwing club (BOAS, GENERAL ANTHROPOLOGY, *D. C. Heath and Company, p. 242); (6) throwing stick and spear* (BOAS, GENERAL ANTHROPOLOGY, *D. C. Heath and Company, p. 244); (7) bow. The throwing stick is equal to a prolongation of the arm, and hence adds more power to the spear that is hurled from it. The throwing club is a very common tool and reaches a fine development in the boomerang, which will return to the thrower. The travois, used with a dog, was later made to fit the horse. Among the Eskimo, the dog pulls also the sled.*

fish, nuts, or skins. But, as has been suggested, trade plays a relatively small part in the total economy of the hunter.

Some hunting peoples do not seem to know how to trade. Early white traders sometimes found well-mannered primitive hunters who depreciated their goods and insisted they were not worth enough to trade. They professed surprise that anyone would want their material possessions. In other places there is the custom of silent trade. One group leaves on a designated spot the objects it has to offer. Later, upon return, they find that the objects have disappeared and other goods have been put in their place. Trading does not appear to be instinctive or even natural. It has to be invented or learned, and apparently it is a late social invention in the evolution of culture.

The gift as a medium of exchange. For many early cultures the mechanism of exchange seems to have been effected by hospitality or by gifts. A gift is a social substitute for money among moneyless cultures. Thus, if a wedding occurs, gifts are brought, which some time later are reciprocated. The system is much like our Christmas giving, which effects a rudimentary exchange of goods. As with us, the people of the hunting cultures remember with great precision the value of the gift. If a task is to be done which calls for co-operative service, such as building a dwelling, and if one co-operator works vigorously and another lazily, this fact will be remembered with exactness for a long time and the reciprocation made with the proper vigor or laziness.

Giving and receiving is thus the customary method of exchange in the primitive hunter's community. The measure of value is made by the receiver and retained in memory without the aid of any token of material value such as money. There are no wages, but the general understanding about labor is that if you help me, I will help you sometime to exactly the same degree.

To the casual observer, who sees this voluntary co-operation, gift-giving, and hospitality, it all appears very generous and even idyllic. But the observer does not reckon with the memory and the degree of reciprocation expected in a gift of goods or services. There is not much chance of anyone making a profit in such an exchange of aid, at least not for long, for the reputation of a slacker is quickly built up and a lazy person has many difficulties. For one thing he has trouble in finding a woman who will marry him, or one who will remain married to him if he proves a laggard.

Hospitality as an economic service. We have seen that before the in-

vention of money and credit, gifts rendered a function like that which money renders with us. In the absence of banks and before the inventions of rent and interest, these service functions were rendered by the practice of hospitality. Hospitality, which is sometimes mistaken for communism, is the rule everywhere in hunting communities. This system of extending hospitality works out reciprocally in the long run and is not wholly one-sided. Any traveler is entitled to food and rest without payment. Indeed, no person in the community is allowed to starve if anyone else possesses food. Sometimes an old person, who has outlived his usefulness or is hopelessly ill, is allowed to starve. But this is a special case and is purposely done. In regard to food, the primitive situation is often one of feast or famine. When the herd of caribou comes by, there is more food than can be consumed, and everyone is generous. But the food gives out in hard winters, and the custom of sharing arises in order to prevent death. Starvation is the common enemy.

The practice of hospitality is at times quite extreme. It even permits the borrowing of a great variety of material objects that are not in use. The custom of lending for money, or of renting, had not been invented among hunters. The ever-present custom of hospitality was extended to cover borrowing, which again is reciprocal. The objects used in the hunt, such as the hunting boat and the harpoon, are not allowed to be lent to others, for they must always be at hand. But other objects may be taken, sometimes even without the owner's knowledge. Moreover, if in use another person's property becomes damaged, it is not always obligatory for the user to make restitution.[1] To a modern observer such practices suggest common ownership. This generosity is especially notable in cases where everyone on a hunt gets a share of a big catch or kill whether he gives the death stroke or not. Also the common use of land for hunting is very widespread. A given area is seldom restricted to the use of a particular individual or family.

We have seen how the economic functions of wages, rent, interest, trade, and money are largely absent from early economic organization. They had not yet been invented. However, the functions which they render are achieved in early economic life by two widespread practices,

[1] Among the Bering Strait Eskimo, "if a man borrows from another and fails to return the article he is not held to account for it. This is done under the general feeling that if a person has enough property to enable him to lend some of it, he has more than he needs. The one who makes the loan under these circumstances does not even feel justified in asking for the return of the article, and waits for it to be given back voluntarily." NELSON, BULLETIN OF AMERICAN ETHNOLOGY, XVIII, Part I, p. 294.

the giving and receiving of gifts and of hospitality. We shall next consider the idea of property in these early times. Even the lower animals have a rudimentary sense of property. At least an animal has possession of the food he is eating, and if another animal tries to take it away, the first behaves in much the same way that a human being behaves when someone tries to take away his property.

Early attitudes toward property. These habits of gift-giving, hospitality, free borrowing, and lending, and the common use of land have led to the idea that communism existed among the primitive hunters. Did communism exist among primitive peoples, or was there individualism and private ownership of property? The point is considered by many to be of value because it appears to throw some light on the nature of man. In the private capitalism of today the pursuit of money and private possessions seem to be a part of our nature. Many individuals feel that a common sharing of goods would be unnatural. There are others who argue that primitive hunters were communists throughout the hundreds of thousands of years that man was in this stage of culture, and that communism mirrors man's nature. Private property, it is claimed, was a late development, and man's original nature has been twisted abnormally into selfish patterns by the rise of the institution of property.

This analysis regarding the true nature of the human race is subject, of course, to the critiques developed in the third section of this book. The idea was advanced there that the original nature of man is highly flexible, though not unlimitedly so, and that the particular culture pattern into which he is born may make him either generous or selfish. The generosity or selfishness which he displays, be it for ever so long a time, mirrors merely the culture in which he happens to be living. As we shall see, culture is only partly the creation of original nature, and man is always only partly well adjusted to his culture.[1] Whether man was communistic or individualistic during his life as a primitive hunter is not as significant, then, as it would be if culture were rather more directly a biological creation.

With reference, however, to the economic life of primitive hunters, it is apparent from the preceding paragraphs that there are both common usage and private ownership. Clothing, ornaments, weapons, tools, utensils, lamps, and usually houses were individually owned, much as with us. Primitive hunting lands, on the contrary, would be called by a modern the property of the clan or band. Indeed the idea of property

[1] Chapters XXIV and XXVIII.

among many primitive peoples was not applied to land any more than we apply it to air. In general what we call public property consisted of the basic means of production. Certain essentials of life, such as land and the food supply, were generally identified with the group, whether it was the family, the clan or the whole tribe, rather than with the individual.

The communal practices appear to have been the outgrowth of the conditions of life. The mobility of animals hunted and the distance to be covered would seem to make individual ownership of hunting lands difficult. The absence of money was naturally accompanied by a system of gifts. The relative scarcity of material inventions and of property seems to mean that property was much more subdued as an element in the social life of primitive peoples than it is with us, where it is plentiful. The prestige of wealth and property is very great with us. Among primitive peoples the prestige of prowess, or reputation in lines other than wealth, was great, as evidenced by the fact that often among primitive hunters slander or malicious gossip was severely condemned and might lead to serious punishment or even to death. Still, primitive peoples have been known to commit murder over the stealing of a knife, showing that the value of ownership of a small piece of property may be high.

The disposal of property at death also reflects attitudes toward property. Frequently a primitive hunter was buried with his personal property around him. This practice was often related to belief in life after death and negates the notion that property is not appreciated; the custom shows rather that it was appreciated. Moreover, while the inheritance of property was not tremendously important, sometimes the inheritance of a name was, much as among royalty today. This importance of names also shows the high esteem in which reputation was held. The name may become the most valuable property.

Economic incentives: property vs. reputation. The modern economic system with all its elaborate structure moves, it is said, because of man's desire to make money. The socialists call this driving force which puts all the capitalistic machinery in motion, the profit motive. If there were not this lure for private gain, why would a man work long and hard? It would be better to lie under a tree and invite one's soul after the manner of Omar Khayyám. Such is the capitalistic view of economic incentives. It is argued that communism will not work because it removes the great incentive to effort, namely, the lure of gain. On this interesting point, the primitive economic system should throw some

light, since it was a system where there was very little private property, where wealth was poorly developed, and where much of what we call property, like land, was communal.

It should first be stated that the lure of gain is not nonexistent in primitive economies. The food gatherer who works the hardest has the most food to eat and can give the biggest feast. But observation shows that the best hunter not only has the most food; he also has the biggest reputation. The lazy hunter receives the scorn of the community. If the incentive for property is slight, certainly the incentive of reputation is very great among peoples with little property. It spurs men to action.

A very interesting illustration is the potlatch competition of the American Indians of the Northwest Coast. These Indians meet in a great celebration and certain goods are distributed by the wealthy. These are usually blankets, which are highly prized. The person who takes them is expected to return them with interest, that is, more blankets. The individual who returns the blankets with the most additional blankets receives the greatest honor. One borrows them at the highest rate of interest possible, instead of at the lowest rate as with us. Glory goes with the payment of high interest. As Barnett [1] puts it, "Virtue rests in publicly disposing of wealth, not in its mere acquisition and accumulation. Accumulation in any quantity by borrowing or otherwise is, in fact, unthinkable unless it be for the purpose of immediate redistribution." Thus the goals men work for are determined by their culture.

Curious, indeed, from our point of view, are the motives underlying the economic activity of men in different cultures. Linton tells how he once bargained with a native merchant at Tananarive for a piece of raffia cloth, finally securing it at a price about a fourth greater than any native would have paid. Linton [2] then offered to take the merchant's entire stock at the same price, but the offer was flatly refused. If he sold out, the merchant explained, he would have the rest of the day on his hands with nothing to do. Dwight Morrow, one-time American

[1] H. G. BARNETT, "THE NATURE OF THE POTLATCH," AMERICAN ANTHROPOLOGIST (new series), 40:353, July–September, 1938. This summary points to a more refined and definitive concept of the potlatch than is given above. In certain respects, the psychology of the potlatch is not unlike the psychology of "conspicuous consumption" by certain people of wealth in our own day. (Cf. THORSTEIN VEBLEN, THEORY OF THE LEISURE CLASS [New York: B. W. Huebsch, 1924].) Status goes with the possession of wealth, and is enhanced by the conspicuous display of wealth.

[2] RALPH LINTON, THE STUDY OF MAN (New York: D. Appleton-Century Company, 1936), p. 144.

Ambassador to Mexico, relates that he purchased for two dollars a hand-made chair from a Mexican peon. He then asked how much the Indian would charge for ten such chairs, and was told twenty-five dollars. When Morrow expressed surprise at this increase in wholesale rates, the Indian explained that he would find making nine more chairs exactly alike exceedingly exacting and annoyingly monotonous.

The correlation of economic life with culture in general. These examples illustrate a general aspect of economic processes in primitive society: they are woven into close relations with other institutions. The potlatch is related to celebration and festival. The exchange of goods is facilitated by gifts at weddings or ceremonies. The custom of hospitality prevents the complete control of personal property. Also, hunting is sometimes closely tied in with religion and magic. Some animals become the totem for a clan and are not allowed to be killed. Again, as was seen, the beginning of trade among hunters is often governed by what we would call good manners. There is thus a close connection between economics and group standards. The economic processes concerning exchange, trade, production, and distribution are very much in accord with the values of the community. Primitive economic life is closely interrelated with family, religion, and community folkways and mores.[1]

The Development of Economic Institutions

Economic life and material culture

Economic life is not only related to community standards; it is also decidedly a function of tools and inventions. Two great discoveries eventually were made which gradually replaced the hunting life with new superior economic forms and greatly speeded the development of some of the economic processes familiar to us. These discoveries were, first, the domestication of animals, particularly the big animals such as cattle; and second, agriculture. Most of the hunting peoples had already domesticated the dog, which aided in the hunt and helped somewhat in transportation, as with the sled among the Eskimo or the travois among the American Indians. With planting and domestication came other discoveries and mechanical inventions. The course of economic organization is closely dependent upon the new inventions in material culture.

The development of agriculture came with the planting of seeds or

[1] L. T. Hobhouse *et al.*, Material Culture and the Social Institutions of the Simpler Peoples (London: Chapman and Hall, 1915).

tubers, and provided greater assurance and stability in the supply of food. It is supposed that agriculture grew out of women's work and was presumably developed by women. The domestication of most wild animals seems to have grown out of men's work. The opportunities to practice agriculture were much more widespread than the opportunities to domesticate such animals as the horse, the cow, the llama, or the caribou, hence the peoples who depended largely on agriculture were more numerous and varied than pastoral peoples who relied largely on domesticated animals for food. Later, with the development of the plow and the spreading of domesticated cattle, horses, sheep, goats, and chickens, the two types of acquiring food were brought together in the farm life as it is known in the historical period.

EARLY AGRICULTURE

In the early stages of agriculture, the hoe or digging stick, rather than the plow, was the chief tool. The effect of the new economy was to make for more permanent settlement with less roving for food. Since agriculture meant a larger and a more assured food supply, it brought larger communities and a greater density of population. In the beginning, the change was probably slow and not dramatic. At first, some hunting was combined with agriculture, but eventually planting replaced hunting as the chief source of food.

Agriculture tended to emphasize the private ownership of land, though there are many agricultural peoples whose land is owned by the clan as in the hunting cultures, and is assigned in plots for use to different families. The crops, however, are the property of the individuals working them. In some cases planting or harvesting may be done co-operatively, so that the food belongs to a number of families collectively.

Hoe culture, like hunting, is not as simple as it may seem, but becomes quite an art. For instance, when the Hopi of the southwestern American desert plant corn, the days of planting are announced by the town crier. The land is then allotted. The planters choose the sandiest spots to plant in, because these are the lowest and likely to catch the most water. The holes are usually 12 or 15 feet apart so that the roots may not draw water from another plant. Ten or twelve grains are planted in a hole; otherwise there would not be enough pollen to fertilize. Flat stones are set up on the windward side of the young sprigs of corn, to keep the drifting sands from cutting it down or covering it up. The tillers work around the young corn with a stick to catch the cutworms that feed on

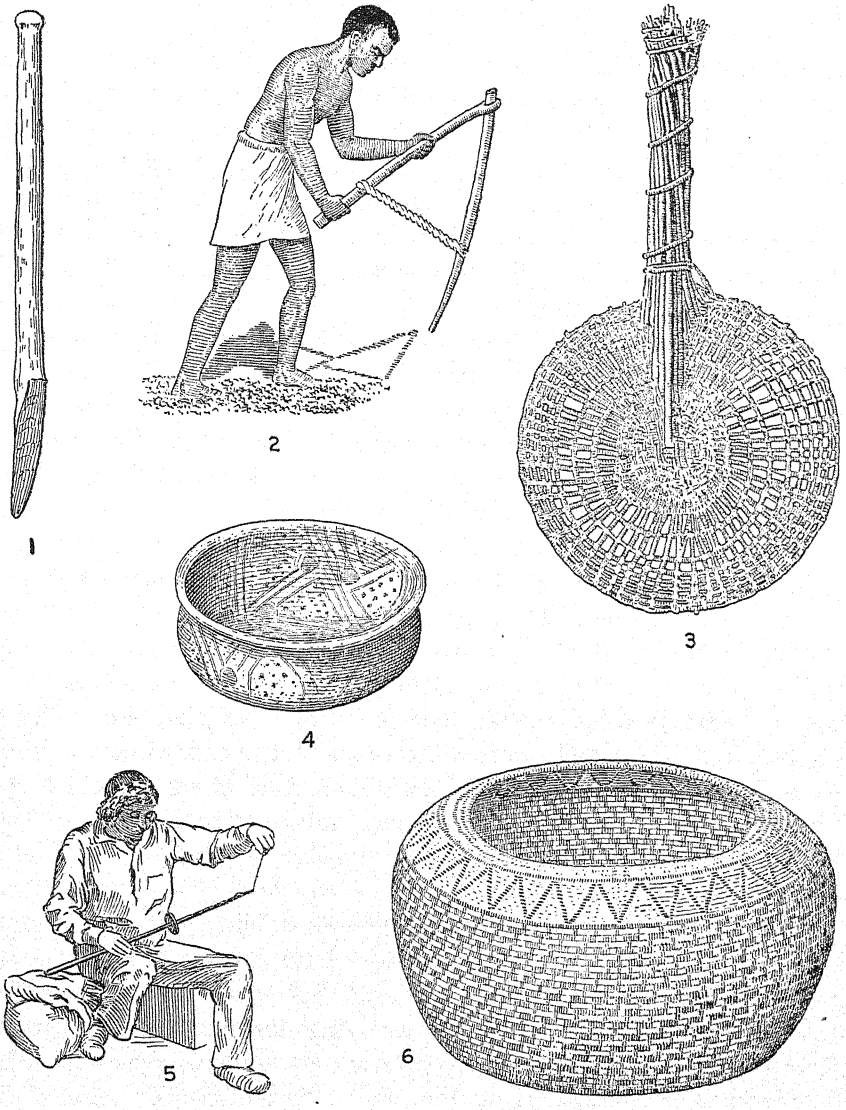


FIGURE 98. SOME CAPITAL GOODS OF THE HOE CULTURES

(1) Digging stick;[1] *(2) wooden hoe; (3) seed beater; (4) pottery; (5) spinning stick;*[1] *(6) basket. The digging stick was the first agricultural instrument and continued to be used for many thousands of years. Among some of the American Indians who did not have pottery, the basket was made water-tight and was used for cooking mush by dropping hot stones into the mush-filled basket. Roots as well as seeds were often set out in the hoe cultures. Many seeds could be stored, which was a very important factor leading to greater security and less loss of life.*

[1] Redrawn from ROBERT H. LOWIE: AN INTRODUCTION TO CULTURAL ANTHROPOLOGY, New and Enlarged Edition, 1940, with the permission of the author and of the publishers, Farrar & Rinehart, Inc., New York.

the corn. The tilling aerates the roots, a good dry farming practice. So expert are the Hopi methods that modern students of scientific agriculture have not been able to offer any improvements, if the same tools and seed are used. Even so, the Hopi must keep one year's supply of corn ahead as insurance against drought, for despite all these careful methods of agriculture some crops are lost. The average annual rainfall in the area is so low that a slight decrease in precipitation may be enough to destroy a year's planting.

With the stable life of agriculture there seem to have been associated other inventions. Pottery-making is partially correlated with agriculture and seldom found among hunters. The weaving of hair, or wool, or cotton is more often found among agricultural groups, for whom it substitutes somewhat for the hunters' use of skins as clothing. With agriculture, housing is more highly developed since habitation is more settled and invention has made some progress. There are, of course, exceptions, as is usually the case with any cultural phenomenon, because of the numerous causal factors involved.

With cloth, pottery, baskets, and crops, property begins to accumulate and to become of considerable significance. Moreover, the advanced skills required in these pursuits lead to further specialization. Out of one hundred individuals, some will do a job better than others. These are the ones likely to specialize. The foundations of exchange are thus laid. Under agriculture there is greater chance of trade.

DOMESTICATION OF ANIMALS

With the domestication of cattle still greater stability of the food supply is gained. However, not all people who have domesticated cattle use milk, or its products, butter and cheese. Such processes must be first discovered and adopted. Even so, domestication means the continued presence of food, in contrast both to the uncertain supply in the wild state, and to the capricious situation in the case of crops. Also, if the herds increase there is more wealth for exchange and trade.

Domestication in some cases began when herds of animals were followed closely, as the Lapps do today with the caribou. In these early stages the animals remain half wild. The domestication of cattle is clearly a man's work and frequently the male assumes a more dominant position among pastoral peoples than he does in the hoe cultures.

In so far as pastoral peoples wander with their herds, their life is more like that of hunters than that of settled agriculturalists. They are not so

likely to carry pottery with them, for instance. Shelters that can be quickly constructed are most suitable. The wandering type of life of some herders seems to fit them for marauding expeditions, the stealing of cattle, or raids on agricultural granaries. Such is the case especially where the horse has been domesticated. The horse is a great aid in war, comparable relatively to the gun or the airplane in later times. The horse is swift and can be ridden; sudden attacks and departures are readily possible, and one may fight from horseback. Cavalry are a great advantage in a fight against people who do not possess horses.

THE GROWTH OF THE HANDICRAFTS

With the development of the domestication and breeding of animals, pastoral life and farming eventually became fused in many lands so that farmers possessed some sheep, cattle, and horses. Such was particularly the case where the plow pulled by an animal had been invented. At this stage of plow culture, property had become quite highly developed. There was individual ownership of farm land, equipment, and products. By planting in rows dug by a plow and by using the power of domesticated animals, a much larger and more certain food supply was possible, and the population became still more dense. In favorable locations the agricultural produce was sufficiently plentiful to exchange. Where the boat and horse were practicable, travel occurred over great distances and the means for carrying on trade were thus established. Meanwhile progress was made in many of the arts. The potter's wheel made better pottery, and glazing was developed. Spinning, which was done earlier by twirling a stick across the knee, was improved with the spinning wheel. There were also improvements in weaving.

While the plow culture brought more wealth and a higher development of the practical arts, it should be noted that the handicrafts had developed into a considerable industry by the time the plow culture was reached. The extent and variety of hand manufacture of useful objects is generally underestimated by those unfamiliar with the simpler material cultures. Much detail is lost in long range perspective. As has been shown, the earliest handicraft products were found in the hunting stages; the devices of hunting and trapping were large in number and of many different types. Even in the ice ages the stone tools for cutting, scraping, and spearing existed in a score of varieties. But by the time the digging stick was superseded by the plow, the evolution of material objects as consumers' and producers' goods had resulted in a still greater variety.

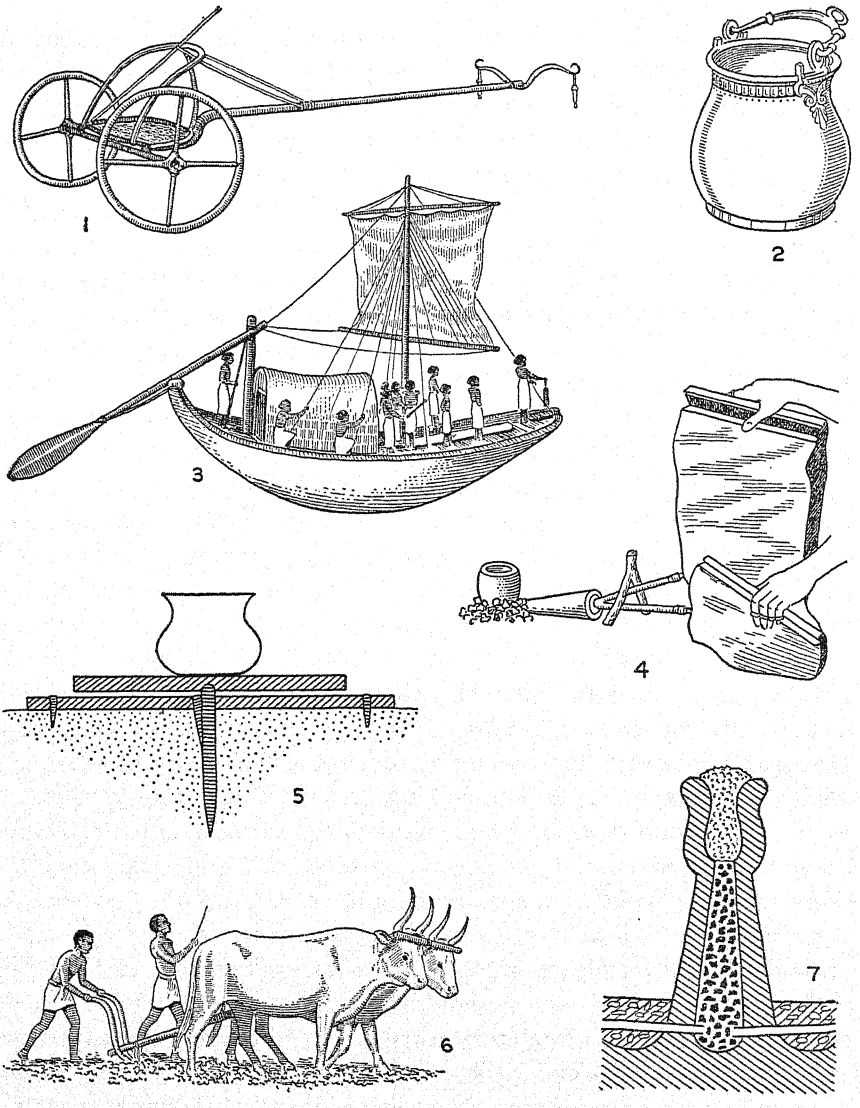


FIGURE 99. CAPITAL GOODS OF THE PLOW CULTURES

(1) Wheel; (2) bronze vessel; (3) sailboat; (4) bellows;[1] *(5) potter's wheel; (6) plow; (7) smelting furnace.*[1] *The bellows were early instruments used in connection with metal-work. The use of the furnace in iron-making was a late development and one not found in all the plow cultures.*

[1] Redrawn from ROBERT H. LOWIE: AN INTRODUCTION TO CULTURAL ANTHROPOLOGY, New and Enlarged Edition, 1940, with the permission of the author and of the publishers, Farrar & Rinehart, Inc., New York.

These products centered around planting, reaping, winnowing, grinding, the care of animals, dairying, cooking, serving food, housekeeping, decoration, furniture-making, leather production, sewing, making of fire and light, spinning, weaving, dyeing and basket-making.

The economic significance of the development of the handicrafts is varied. In the first place, it meant a growth of property. In the competition between man's quest for possessions and his desire for intangible values such as reputation or affection, the former was gaining ground. Second, the greater the variety and number of such objects of hand manufacture, the greater the requirement of labor, and hence there was an impetus to an extension of the division of labor beyond the principles of sex and age.

The growth of the division of labor. Specialization was furthered by the discoveries of the use of copper, tin, gold, bronze, and iron. Such metals were very valuable as tools, weapons, and ornaments, and were put to uses formerly served by clay, wood, stone, grass, and beads. The distribution in nature of metals was less widespread than the substances they displaced, and on this account it was not easy for each household or each male in a household to become adept in the working of metals. Thus specialists such as the tinsmith arose. When the water wheel replaced the mortar and pestle, the miller appeared. And with the use of the wheel, invented in only one place in the world, there came the wheelwright. The development of specialists outside each family meant that there had to be a further exchange of goods.

The exchange of goods over distances means transportation as well as trade. The boat possessed by all peoples living near water was a great agency for transportation even after the domestication of the horse. A horse can be ridden over plains, but it cannot be driven well through the woods without roads. Road-making is a fairly late development of man. Roads that would carry a wagon were, until quite recently, very poor. All during the Middle Ages the mileage covered by a loaded wagon over the rough roads was around a dozen or a score a day. The sled with reindeer or dogs to pull it over the ice was much faster than the horse and wagon. But the boat made possible the most extensive travel. It is known that in the eleventh century A.D., Icelanders were in America and in Constantinople.

The origin of the commercial and industrial city. With specialization in the handicrafts and improvements in transportation, the volume of trade increased. One evidence of this was the city, which may be thought of

as a place where the inhabitants do not grow enough food to feed themselves. They therefore must import it from outside, which means transportation and trade. They cannot get food gratis, so they must make cloth, leather, metal goods or something else to exchange for it. Within these early cities, located on water routes, there developed certain places for trade. The goods were assembled at certain places on certain days to be inspected, bought, and sold. Such an impromptu market place was the origin of the store. Although trade was predominantly by barter, there were some goods in frequent demand which were exchanged most often. When such goods were light and durable, as was the case with gold and silver ornaments, money developed. The volume of trade coincident with a city's life was a stimulant for the use of money. Special stores dealing in money alone, that is, banks, did not flourish until modern times, though there were pawnbrokers in the Middle Ages and money-changers in Biblical times.

Growth of economic organization. The greatly varied output in consumers' goods made possible by invention was accompanied by a corresponding development of economic organization. Some of these economic institutions have been indicated in the account of the development of the material cultures. In earlier times, production occurred usually in the family organization, where there was some division of labor by sex and age. But since the family was the consuming unit, little exchange resulted. The community supplemented the family organization in special economic undertakings, such as the hunting party, the organization of planting, or the allotment of lands. The community, through its social customs, provided regulations for economic behavior as well as for all other behavior, so that the selfish did not become intolerably ruthless. There were varying degrees of exchange of gifts at ceremonies, of co-operation of labor, and of use of common land and other objects such as cooking ovens. Thus in the hunting stages economic life was ordered by the family and the community. In the subsequent plow and cattle culture the economic organization of the family became visible in the farm. The economic rôle of the community was also evident, since the families nearly always lived in houses clustered close together in a village, with the farm lands located some distance away.

Feudal organization. Preceding the emergence of our modern order, the necessity for protection against marauding groups in Europe led to the feudal type of organization, especially where a central government did not exist or was breaking up. Owners of property and large holders

of land found they could exact payments of money or goods from weaker farmers. With this money soldiers could be maintained. A big farmer, called a lord, with little farmers grouped around him, could do the same. These lords lived in large houses called manors, or castles, near villages or farms. They secured control over surrounding neighbors, exacting material tribute and giving them protection from robbers, pirates, and marauding groups in general.[1] There was thus built up a type of economic organization much larger than the family. It led to greater division of labor and to an increase in the variety of goods, because of the potentialities which exist when wealth is accumulated in the hands of a few. The manor and feudal systems were very widespread, being found even among many preliterate peoples, sometimes in incipient forms and sometimes well developed.

The city, which often grew up shortly after the manor in various parts of the world, was a form of an economic as well as a political and social organization. The city arose from the growth of specialization, trade, and transportation. Early cities were usually on water routes, utilizing transportation by water craft. Production in cities consisted not so much of the growth of foodstuffs, as of the fabrication by hand of material objects. The handicraftsmen banded together for protection into guilds, the forerunners of the trade unions of today. In earlier times, however, the guilds were manufacturers' associations, since the workmen owned their own tools of production and were also owners of great wealth for those days.

Specialization in economic organization followed quite rapidly. As the market place was the beginning of the store, the peddler was the early salesman, and the pawnbroker the early banker. Specialists in transportation built larger boats manned by galley slaves and sailors. The wage-earners grew out of apprentices and helpers to the handicraftsmen. In those days the ratio of the number of masters to the number of helpers was more nearly equal than the ratio of employers and wage-earners today.

The Modern Economic System

CAPITALISM

New mechanical inventions mean more economic goods. Thanks to inventions, handicraft manufacture reached an advanced stage before the

[1] For a discussion of feudalism see J. T. Abdy, Feudalism, its rise, progress and consequences (London: G. Bell and Sons, 1890).

coming of steam. Steam power, however, gave a great impetus to production, as did also the perfection of steel tools. As the volume and variety of economic goods increased, the differentiation between consumers' goods and producers' goods became more pronounced. Producers' goods were now more intricate, expensive, and more difficult to acquire because financing was necessary. Money for their purchase was called capital, and the raw materials and tools purchased were known as capital goods. During feudalism the ownership of the handicraft business, of transportation, or of merchandising had been, like farming, in the hands of the family. Sometimes the heads of two or more families joined forces to conduct the business better, or to increase their capital. Thus began the movement away from family domination of industry.

Each partner in such an economic organization was liable for the whole indebtedness of the partnership, which was a protection for the creditors. The partnership, however, was not a ready device for raising capital to meet the expanding needs of business. This service was better furnished by the corporation, which made it possible for any number of persons to supply the needed capital. In return each investor received his proportionate share of stock and was in general liable only up to the value of the shares he held. The stockholders could also borrow money by the device of issuing bonds which were in effect mortgages on the assets of the corporation. If the shareholders were large in number, management was delegated to a committee who chose a president or manager. This type of economic organization has been the prevailing one in the expansion and growth of industry in the western world, especially during the power age. So different was this new type of industrial life from that of the household economy and the handicrafts that a special name was devised for it. Because capital played such a prominent part in financing the new system, it was called capitalism.

The relation of capitalism to agriculture. The capitalistic system affected farming less than it did the handicrafts. These were transformed by steam and steel. The small tools of the handicraft stage grew so large that special houses were built to contain them. Few people had enough money alone to own such giant tools. Steam was not applicable to farming, and the power continued to be supplied by the muscles of humans, by horses, mules and oxen, and by the wind. Although the steam engine was not useful on the farm, the gasoline engine was light enough to put on wheels which could travel up and down furrows and on roads without rails. Now, in the middle of the twentieth century,

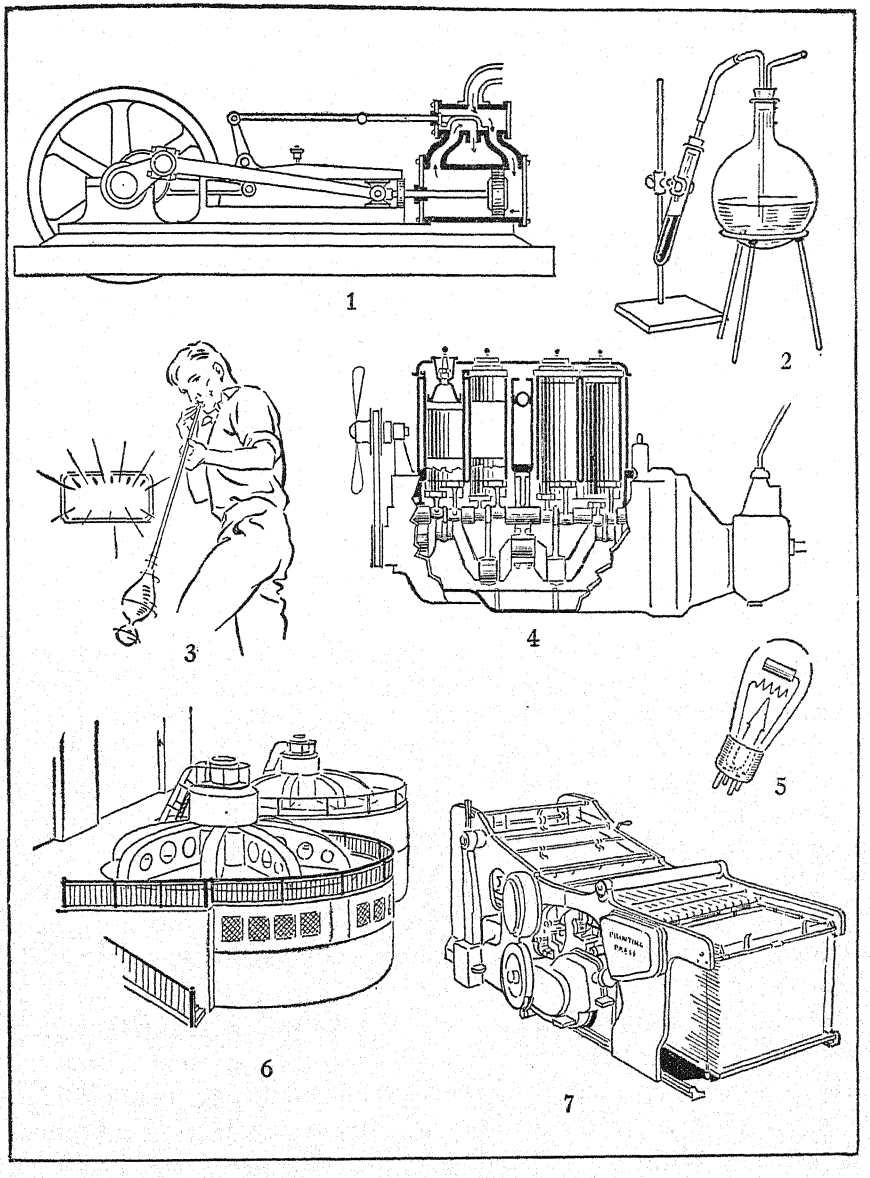


FIGURE 100. SOME CAPITAL GOODS OF MODERN CULTURE

(1) Design of steam engine; (2) chemical retort; (3) glass blower; (4) cross section of gas engine; (5) electron tube; (6) dynamo; (7) printing press.

mechanical power is coming to the farms as it did a century earlier to the handicrafts. Wheat farming has been completely mechanized. The combine was developed before the gas engine was applied to farming, but the internal combustion engine has facilitated its adoption. The tractor is the most versatile automotive tool yet developed for the farm. Mechanical corn harvesters and cotton pickers are on the way. However, at the present time in the United States, the average farm has only $525 worth of implements and machines.[1] How little machinery is still used is seen by the fact that its value is only 7 per cent of the value of farm lands and buildings.

Very little capital is needed to pay labor in farming, since only 15 per cent of all farm labor is paid in wages, 85 per cent being the contribution of the farmer and his family.[2] However, farmers have in the United States in large part abandoned complete subsistence farming, in which little is bought and sold, and needs are met from farm production. Eighty-five per cent of all farm products are now sold on the market. This money is generally spent for fertilizer, seed, tools, and machinery, and for a living for the farmer and his family.

Some farms, however, are very large and employ much labor and capital. Indeed there are a few cases of farms being organized into a corporation and run as such. There are still, however, many farms that are partially — fifty per cent or more — self-sufficient. In Grayson county,[3] Kentucky, in 1930, soap was made by 78 per cent of the families, furniture by 5 per cent, brooms by 20 per cent, quilts by 65 per cent, shoes by 1 per cent, lard by 82 per cent, salted smoked meat by 70 per cent, butter by 96 per cent, weaving was done by 1 per cent, spinning by 8 per cent, dyeing by 7 per cent, shoes repaired by 48 per cent. The need of money for purchasing such commodities from outside was accordingly reduced.

Farming has come so little under the capitalistic structure that there have been developed for agriculture relatively few supporting economic structures such as credit institutions and marketing organizations. Most rural banks and wholesale houses are really city institutions adapted to short-term or demand loans. Farmers need cheap long-term credit for land purchases; short-term credit for machines; and finally a still shorter-term credit to carry them until the money crop is sold.

[1] STATISTICAL ABSTRACT OF THE UNITED STATES, 1938. [2] *Ibid.*

[3] ECONOMIC AND SOCIAL PROBLEMS AND CONDITIONS OF THE SOUTHERN APPALACHIANS, Miscellaneous publication no. 205, United States Department of Agriculture, January, 1935.

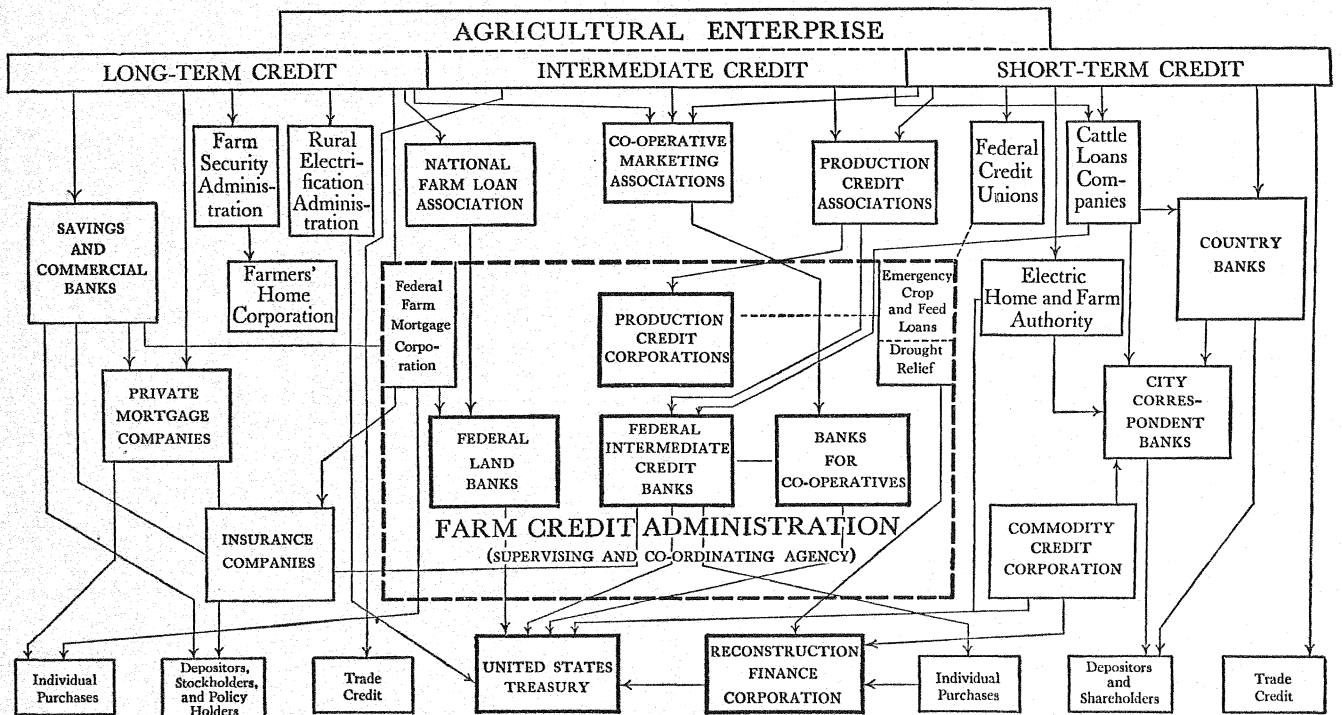


FIGURE 101. INSTITUTIONS UTILIZED IN AGRICULTURAL BORROWING

As agriculture becomes commercialized and mechanized, the farmers develop credit institutions of their own. In the early stages of agricultural development, farmers have had to be dependent on urban credit institutions. MOULTON, FINANCIAL ORGANIZATION (*Chicago: University of Chicago Press*), *p. 607.*

These needs are being met by urban stores and town banks while rural institutions of credit and marketing are being developed.

Agriculture suffers particularly in depressions. The numerous independent farm units cannot act concertedly to curtail production as can city factories. The farmer, who originally produced only for family consumption, has continued planting all his land every year. For a self-sufficing farmer that is good practice. But for a commercial farmer it is not very well adapted to the fluctuations of the market due to the business cycle. Consequently the farmer is forced at times to sell a big supply at low prices, and to buy the products of factories at high prices, since the city man curtails the production, thus keeping his prices from falling as low as farm prices.

There are other farm problems resulting from the lack of adaptation of farming to capitalistic methods. For instance, when machines replace human labor on the farms, the displaced labor cannot be absorbed by agriculture, as it was by industry, for farming cannot expand at any such rate as industry did. At least the farms producing food products cannot find a rapidly increasing market, because the demand for food is inelastic. With the high birth rate on the farms and the low birth rate in the cities, there tends to be too many farmers for their own best economic interests. Such is the case except in wartime or periods of great industrial expansion with the accompanying growth of cities, which are, of course, markets for farm products.

The trend of agriculture, however, is toward capitalistic procedures. Mechanization is increasing. There is less subsistence farming, and rural financial and marketing institutions are being developed. Though there will always be marked differences, the business of the farmer is becoming more like the business of the city man.

Private capitalism as a free enterprise system. Capitalism is a great system which includes production, transportation, distribution and credit units; which employs labor; pays interest and dividends on investments; and supplies the great variety of wants of large heterogeneous populations. How does such a complicated system work? For it does work fairly smoothly most of the time. It has raised the standard of living and erected a marvelous economic civilization.

According to the classical economist, the free enterprise system works quite simply. Competition is the mainspring of the system. By virtue of competition prices are kept down for consumers. Competition also keeps down the costs of production, thus operating to retain only the

efficient in business. Competition among employers for wage-earners tends to raise the wages with which the articles of production are bought. The producers sell at a high enough price to pay interest on their money, and are thus enabled to attract the capital with which to carry on the economic process. The wants of the people are met by the production of just enough goods to satisfy the demand. If too much is produced, the producer loses, because he then sells at less than the cost of production.

So simple as this is the working of the system — theoretically. It all seems to work automatically. It would be difficult for an economic dictator to do as well. The system is much revered by economists. The factors that are most appreciated are those that keep prices down, lower the cost of production and work automatically to furnish all the complex needs by balancing supply and demand. "The system of free enterprise" is still a fairly accurate descriptive title to give to the capitalistic order as it exists in the United States today. But a good many obstacles and interferences with the neat operation of the system have appeared, as will be shown in later paragraphs, so that the foregoing account is somewhat idealized.

THE PRODUCTION OF WEALTH

Under the impulse of the profit motive wealth has increased amazingly. The income of the United States reached the astounding total of 89 billion dollars in 1929, before the bad years of the nineteen-thirties. The income in preceding eras is not known, but the census of manufactures gives some idea of the increase in wealth. The first census of manufactures authorized by Congress was taken in 1810. The value of the annual products of American manufacture was in that year estimated to be about 200 million dollars.[1] Fifty years later, in 1860, the value of American manufactures was 1.5 billion dollars, and in 1929 the figure had risen to 58.1 billions, or about 300 times what it was about a century before. This represents an enormous increase in the number and kinds of goods available.[2] The total wealth of the United States (from agriculture, manufacturing, transportation, mines and quarries, hand trades, stocks of goods, distribution, urban real estate, chattels, public service, tax-exempt

[1] AMERICAN STATE PAPER, FINANCE (Washington: Government Printing Office), vol. II, pp. 666–812.

[2] ROBERT R. DOANE, THE MEASUREMENT OF AMERICAN WEALTH (New York: Harper and Brothers, 1933).

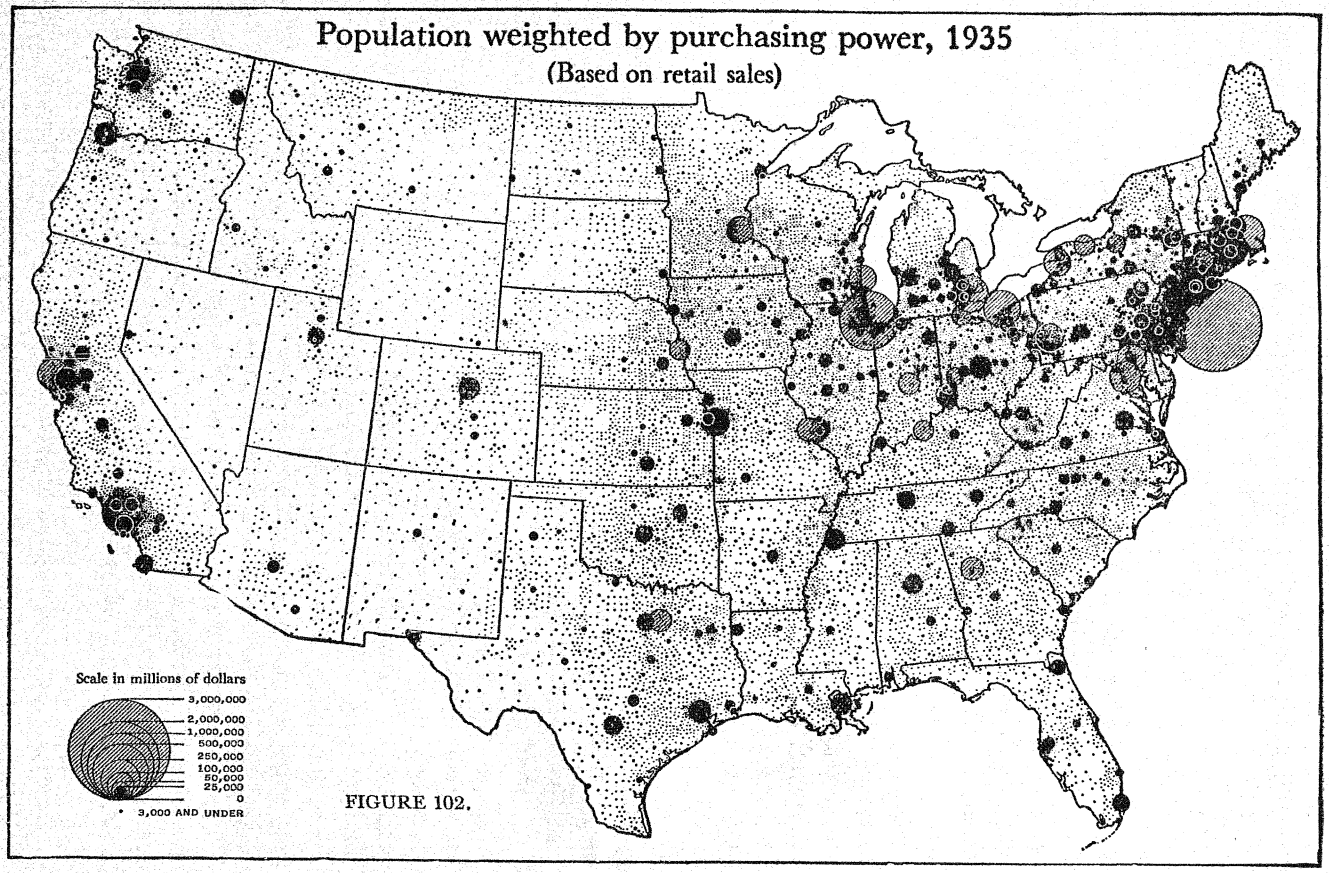
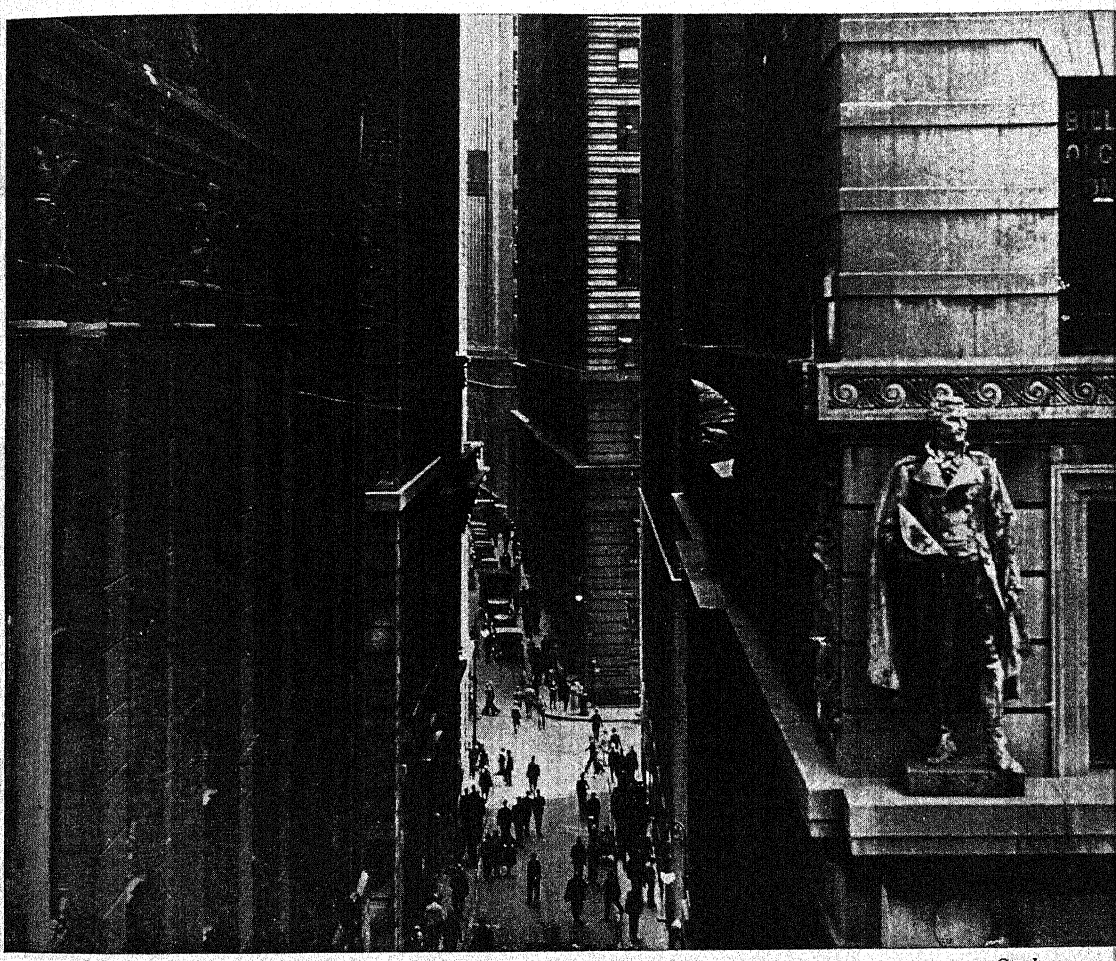

Population weighted by purchasing power, 1935
(Based on retail sales)
Scale in millions of dollars
3,000,000
2,000,000
1,000,000
500,000
250,000
100,000
50,000
25,000
0
3,000 AND UNDER

FIGURE 102.

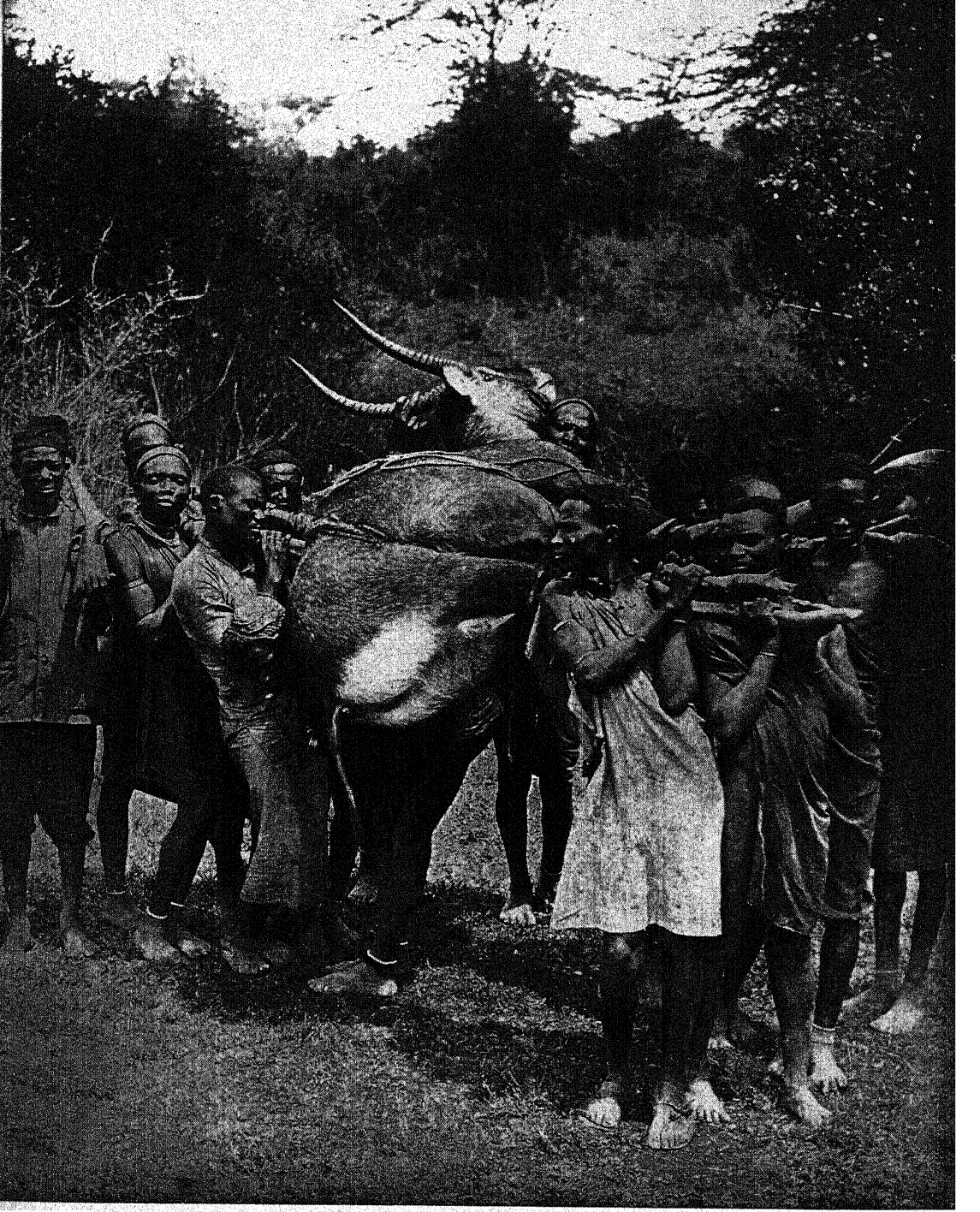


American Museum of Natural History, N.Y.



Gendreau

PLATE 9. THE NEW ENVIRONMENT OF CITIES



Keystone

PLATE 10. PRIMITIVE HUNTING PARTY

The hunting party has a very good claim as the origin of the state. At least it was one of the early factors that led to the state, for the hunting party had organized discipline and control under authorized leadership. Generally in other situations such organization and authority rest with the

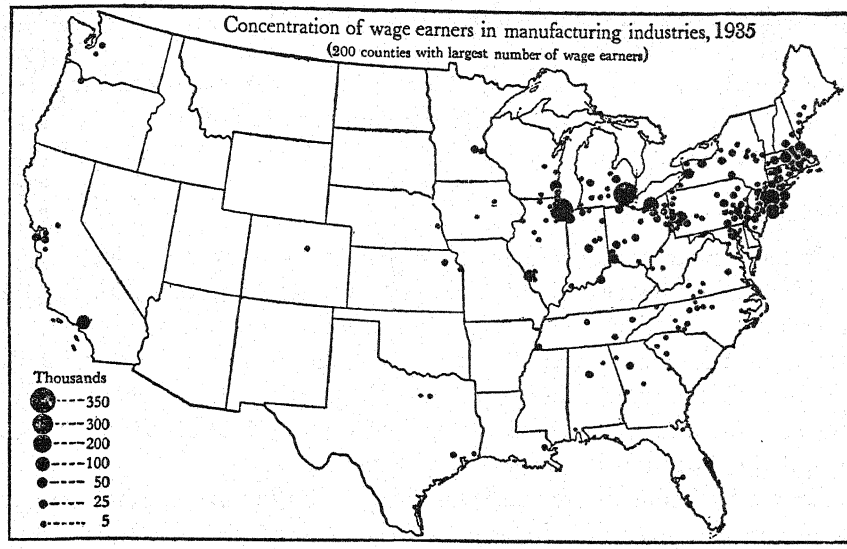


FIGURE 103. CONCENTRATION OF WAGE-EARNERS IN MANUFACTURING INDUSTRIES, 1935

This map should be compared with Figure 102. Such a comparison shows that where there is the greatest concentration of wage-earners and manufacturing industries there is the greatest purchasing power. It is the ambition of most nations of the world to obtain manufacturing, which in the past has been based largely on coal and iron. From STRUCTURE OF THE AMERICAN ECONOMY *(Washington: National Resources Committee, Government Printing Office, 1939), p. 37.*

property, forest and timber, wealth owned abroad, bank deposits, and money in circulation) is estimated to have increased from 4.1 billions of current dollars in 1860 to 627.3 billions in 1929.[1]

All this remarkable economic progress is usually attributed to competitive private capitalism. Certainly this was the system under which this wealth was created. But some of the increase must have been due to a growing population that would probably have filled up a continent under any system. Some of the wealth comes from the abundant natural resources. Also the gifts of nature could not have been transformed into usable articles of consumption without the brilliant array of inventions of the nineteenth and twentieth centuries. These inventions would probably have been made and put to work under monopoly or some form of state control, though the adoption of these inventions might not have been as rapid. But under private capitalism, in the middle of the nineteen-twenties, before the boom and following depression, Great

[1] ROBERT R. DOANE, *op. cit.*

Britain had attained a per capita annual income of $419,[1] France $224, the United States $614, and Italy, less industrialized, $101. Whether these achievements might have been made under some other system cannot be said, but certainly private capitalism did not prevent such incomes from being produced.

THE DISTRIBUTION OF WEALTH

Under private capitalism, not everyone gets the same income. The president of the International Business Machines Company gets a wage of a thousand dollars a day, while John Smith, agricultural laborer in the South, receives a wage of only a half dollar a day. The rich man's salary is two thousand times as much as the poor man's. These are only wages. The rich also receive interest on bonds and dividends on stocks, so that the variation in income is even greater.

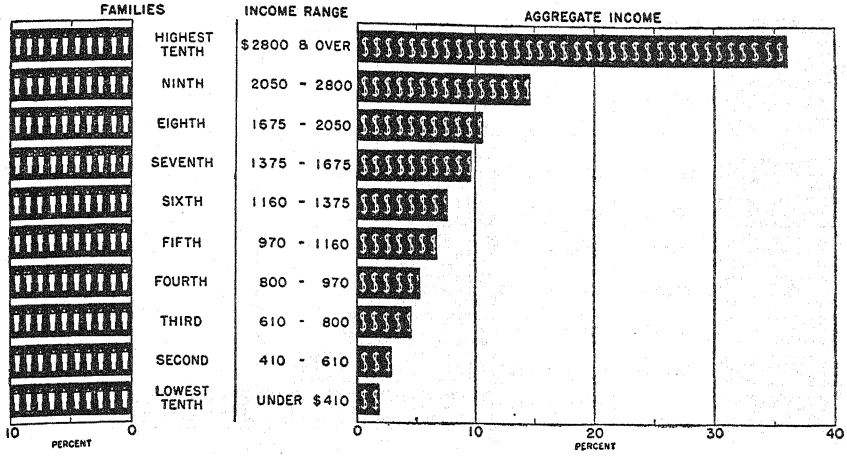
For the United States in 1935–36, the distribution of the whole family income of the people of the rich, poor, and middle classes is shown in Figure 104. This figure shows that 10 per cent of all the families in the United States received less than $410 a year income. These families received only 2 per cent of the total family income of the country. The poorest 10 per cent of the families, then, received 2 per cent of the income. On the other hand, the richest 10 per cent of the families received 36 per cent of the total family income. The total amount received by this richest 10 per cent was approximately the same as the total amount received by the lower two thirds of the families of the country. A somewhat similar inequality in income exists in the non-communistic European countries.

This inequality in income has received much discussion. Is it just that the rich should be so wealthy and the poor so destitute? Some defenders of the capitalistic system argue that the system distributes to each according to his abilities.[2] The rich are more able than the poor and hence have a larger income. The range is, however, quite great. There were 75 families in the United States in 1935–36 whose average income per family was $2,000,000.[3] On the other hand, there were over

[1] The figures are in American dollars at 1925 exchange rates. When comparisons are made in terms of what the moneys of the different countries will buy, not in American dollars, but in products at wholesale prices in their own countries, the figures are Great Britain $409, France $251, United States $614, and Italy $115. These figures are from CORRADO GINI, A COMPARISON OF THE WEALTH OF SEVERAL IMPORTANT NATIONS (Rome, Italy, 1925), pp. 38–42.

[2] JOHN BATES CLARK, THE DISTRIBUTION OF WEALTH (New York: The Macmillan Company, 1902).

[3] National Resources Committee, CONSUMER INCOMES IN THE UNITED STATES (Washington: Government Printing Office, 1938), p. 18, Table 3.



This chart may be read either by length of bars or by symbols. Each figure symbol represents 1 per cent of all families or 294,000 families. Each dollar symbol represents 1 per cent of aggregate income of all families or $476,792,380.

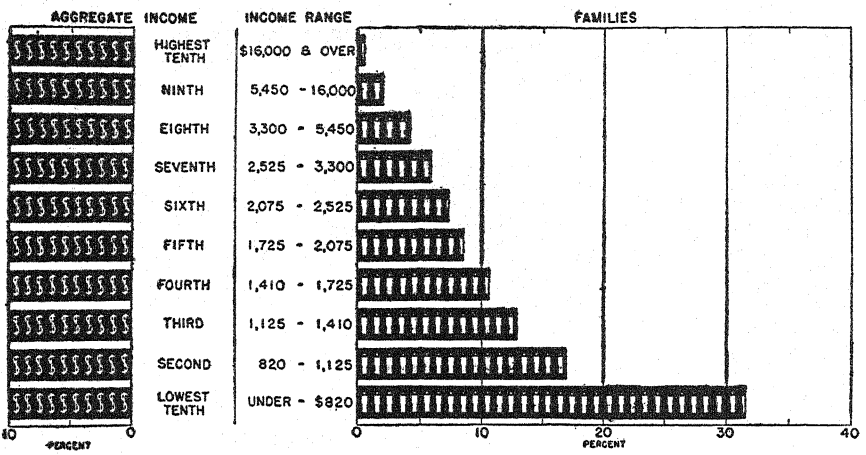
FIGURE 104. THE UNEQUAL DISTRIBUTION OF INCOME

Share of the aggregate family income received by each tenth of the families of the United States, 1935–36. The richest tenth of our families received twenty-five times as much money as the poorest tenth of our families. To reduce the disparity in this unequal distribution of income is a major social program. NATIONAL RESOURCES COMMITTEE, CONSUMER INCOMES IN THE UNITED STATES (*Washington: Government Printing Office, 1938*), *p. 19, Chart. 11.*

a million families who received an average income per family of less than $250 a year. The range from $250 a year to $2,000,000 is very great. There is, of course, also a great range in mental ability, from feeble-mindedness to genius. Does inherited biological ability determine the distribution of income?

On this question it is interesting to compare the shape of the distribution of inherited qualities with the shape of the distribution of incomes. The distribution of families by numbers receiving equal parts (tenths) of the income is shown in Figure 105. The distribution is shaped like a right-angled triangle. On the other hand, the distribution curve of inherited traits, judging from available evidence, is shaped like the figure (Figure 13, page 70) in Chapter III showing the stature of American soldiers in the World War. It is like the contour of a bell. If income were distributed according to inherited abilities [1] the distribution curve would be like this bell and not like the triangle shown in Figure 105.

[1] The factors affecting the distribution of income, and of social success generally, are considered in Chapter III.



This chart may be read either by length of bars or by symbols. Each dollar symbol represents 1 per cent of aggregate income of all families or $476,792,380. Each figure symbol represents 1 per cent of all families or 294,000 families.

FIGURE 105. THE RICH AND THE POOR

The proportion of families in the United States receiving a tenth of the aggregate family income, 1935–36. Those receiving incomes of $820 or under are forty times as numerous as those receiving incomes of $16,000 or over. Is this distribution due to ability or privilege? NATIONAL RESOURCES COMMITTEE, CONSUMER INCOMES IN THE UNITED STATES (*Washington: Government Printing Office, 1938*), *p. 20, Chart 12.*

The free enterprise system with the incentive for profit has facilitated this unequal distribution of income. However, such an inequality in wealth is not peculiar to the capitalist system. It is found in the feudal system, and where there is private ownership of farm lands. The rich landholder tends to buy more land and to increase his holdings, if there is a system of labor to work it. As the rich landowners acquire more of the limited supply, the holdings of the poor become less and are generally nothing. In France in 1793, in Mexico in 1857, and in Russia in 1917, these large holdings of land were divided and redistributed among the people.

In communistic Russia there is considerable inequality of income, but the range is said to be slight as compared to that in countries with the free enterprise system. In the totalitarian states of Germany and Italy the government appropriates for military purposes so large a portion of high incomes that the range of incomes in these countries is probably less than in the United States.

In the free enterprise states there are efforts to lessen the inequalities

in income. The income tax is graduated to take a larger proportion of high incomes. In fact in the United States three quarters of an income over $1,000,000 is taken by the National Government. Also there are minimum wage laws designed to raise the incomes at the lower levels. Such was the purpose of the Wages and Hours Act passed by Congress in 1938. These attempts to cut off the extremes of income distribution are, however, interferences with the free operation of the system.

LABOR

The laissez-faire system at its inception was particularly bad for the workers.[1] Sometimes they began work an hour or so before daylight and continued to work until an hour or so after dark. Children eleven and twelve years old worked these long hours. The conditions of work were also often unhealthful. Later these conditions were remedied, partly by trade unions, and partly by the evolution of humanitarian considerations resulting in social legislation.

The bargaining power of employers and laborers for the price to be paid labor is unequal. The loss of a job means more to the laborer than the loss of a laborer means to an employer. To strengthen the bargaining power of labor, employees have bound themselves together and bargain collectively instead of singly, being represented in the bargaining by someone not on the payroll of the employer. Such is the origin of labor unions. Employers can bargain better with a single laborer; hence they have generally been opposed to labor unions. In order to give strength to their bargaining, the employees hold in reserve the right to strike, to which of course they do not like to resort, since it entails financial loss and suffering for their families. Despite this reluctance to strike there have been from two to three thousand strikes annually in the United States in recent normal years.[2] But if employees did not have the right to stop work, their ability to bargain would be very ineffective.

At first the workers were organized into unions along trade lines, as for instance typographers, carpenters, and machinists. The members of the same union would be employed in many different industries. The union machinists might be employed by the United States Steel Com-

[1] J. KUCZYNSKI, LABOR CONDITIONS IN WESTERN EUROPE, 1820–1935 (New York: International Publishers, 1936).

[2] FLORENCE PETERSON, STRIKES IN THE UNITED STATES, 1880–1936. Bulletin of the Bureau of Labor Statistics, no. 651 (Washington: Government Printing Office, 1938).

pany, Chrysler Motors, and the Baltimore and Ohio Railroad. Furthermore, machinists were only a small part of the labor force of certain industries, like the automotive, and were not in as strong a position to bargain collectively as would be the total labor force if it were affiliated with an outside union. A union of the latter kind is called an industrial union, since it is organized for a whole industry rather than for a trade.

In the United States the trade unions were affiliated into a federation, the American Federation of Labor, organized in 1886. There formerly were, however, in the A.F. of L. some industrial unions also, the principal one being that of the coal miners. Organized separately are a few trade unions, for instance those of the locomotive engineers, conductors, and firemen. In 1935, the Committee for Industrial Organization, now known as the Congress of Industrial Organizations, created a large organization of industrial unions. They pulled out the miners from the A.F. of L., took in the men's garment workers, and organized industrially part of the workers in several industries, particularly the steel and automobile industries. In 1937, the A.F. of L. claimed 3 million members, the C.I.O. 3.5 million, and the railroad brotherhoods 600,000.[1] There were thus said to be over seven million workers in unions, or about one third of the organizable workers in the United States. The free enterprise system has been interfered with, then, in the interests of labor, by social legislation and by labor unions.

THE BUSINESS CYCLE

The modern economic system has experienced a number of severe crises accompanied by bankruptcies, unemployment, and loss of profits. In the early part of the nineteen-thirties there was a very severe depression. The income of the people dropped from 89 billion dollars in 1929 to 39 billion in 1932. The unemployed totaled 13 million in 1933, or about a quarter of the working population. Similar severe depressions occurred in the middle eighteen-nineties, in the early seventies, and at other times. Between such violent disturbances there have been many panics and depressions of less severity. In the United States between 1790 and 1939, there have been thirty-six business depressions of varying durations and intensities, averaging four years to a cycle. There was one year of depression for every year and a half of prosperity.[2] In

[1] There is much dispute of figures of membership in unions, due in part to differing definitions and concepts of membership.

[2] WILLARD J. THORP and WESLEY C. MITCHELL, BUSINESS ANNALS (New York: National Bureau of Economic Research, 1926).

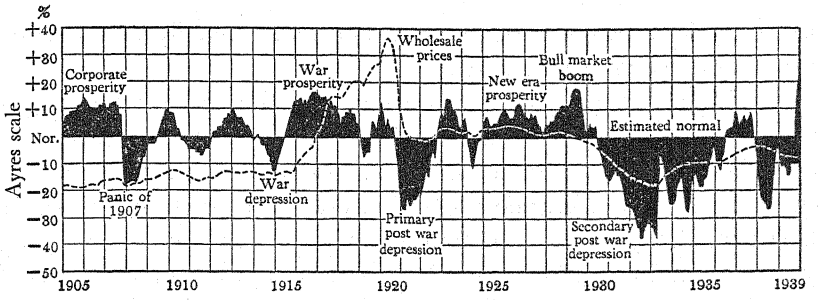


FIGURE 106. THE BUSINESS CYCLE

Business conditions alternate from good times to hard times. When the latter are very severe, great tragedy and suffering are caused to business and all of society. These violent swings are one of the problems of the capitalistic system. (*From 1900 to 1926 the* AYRES INDEX OF BUSINESS ACTIVITY, *computed by* LEONARD AYRES *of the Cleveland Trust Company, has been used. From 1926 to 1939 the* ANNALIST INDEX OF BUSINESS ACTIVITY *has been equated to the Ayres scale and used.*)

Figure 106 a graph of the duration and intensity of recent business depressions is shown. The graph is drawn also to show the periods of prosperity, which equal in number the periods of depression.

As long as these fluctuations in business conditions are not severe they are not viewed as an indication that the economic system is working particularly badly. Indeed there are those who hold that the depressions weed out the inefficient and serve as an impetus to improve management. But when we have very severe depressions, with banks closed and deposits lost, production stopped, and hordes of unemployed, then the question is raised as to whether our present economic system is not cracking up as other systems, such as feudalism, have done before.

The answer lies in an understanding of what causes these fluctuations in business. It is generally admitted that variations in business conditions are due to changes in the ratio of purchasing power to physical production. If money increases faster than production there are good times. On the other hand, if the industrial and agricultural output increases faster than the outstanding money and credit, prices fall, sales are sacrificed, and hard times set in. But there are many underlying factors that affect purchasing power and production. Some of these are new gold mines, war, international loans, government borrowings, new inventions, and population movements.[1] From the evidence available to us we may infer that severe depressions are indications that

[1] WESLEY C. MITCHELL, BUSINESS CYCLES (New York: National Bureau of Economic Research, 1927).

the economic system is working badly, but not necessarily that it is about to undergo a permanent collapse.

Something, though, is certainly wrong with the system when 13,700,000 are out of work and hungry, while at the same time the farmers are producing 100,000,000 bushels of wheat which must be stored because it cannot be sold to consumers. The people want clothing, there is a surplus of 6,000,000 bales of cotton, yet the cotton mills and clothing factories are not running. It would seem as though the producers should hire the unemployed to produce the clothing. With the wages they are paid they could make the purchases they need. But the operation of the system under the incentive of profits is not so simple. There are too many diverse and uncontrolled factors affecting the flow of purchasing power and the flow of products. In time the balance is restored. But it takes more time than for employer A and employee B to get together.

Although depressions may be attributed to the nature of the economic system, it is not proven that they are the fault of laissez-faire conditions, and that they would not occur under other systems. Indeed the modifications of laissez-faire conditions in the direction of control in the United States seem to prolong the depressions. The analysis of business cycles indicates that if the free enterprise system were left to work unhampered by monopolies of labor or of industry, and without state interference, prices would fall very sharply in a depression, and recover quickly. The drop would cause a vast amount of commercial failure and unemployment, but the liquidation of prices would be so great that costs would be sufficiently low to permit industry to produce and sell at a low price. Hence effective demand would be stimulated, purchasing power would be brought into a more favorable relation to production, and recovery would be under way. According to this theory, it is the attempt of government, monopolies, and labor to maintain prices that delays recovery, though it may also soften the shock of the decline. This analysis is still a theory, not a proved law.

In actual practice the working out of the laissez-faire theory means such severe deflation that most industries do not want to experience it. They strive hard to maintain prices and even to get the government to inflate prices. The experiments in this direction are young. In time something may be worked out. The tremendous outlays for military purposes, which most totalitarian states have provided, naturally prevent depressions at the time, since they so greatly augment the purchasing power. Democracies could do the same in peacetime and are doing

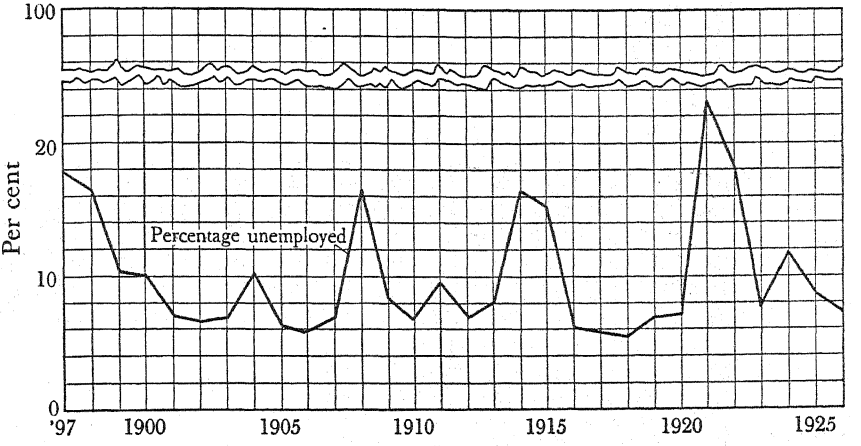


FIGURE 107. UNEMPLOYMENT IN DEPRESSION AND PROSPERITY

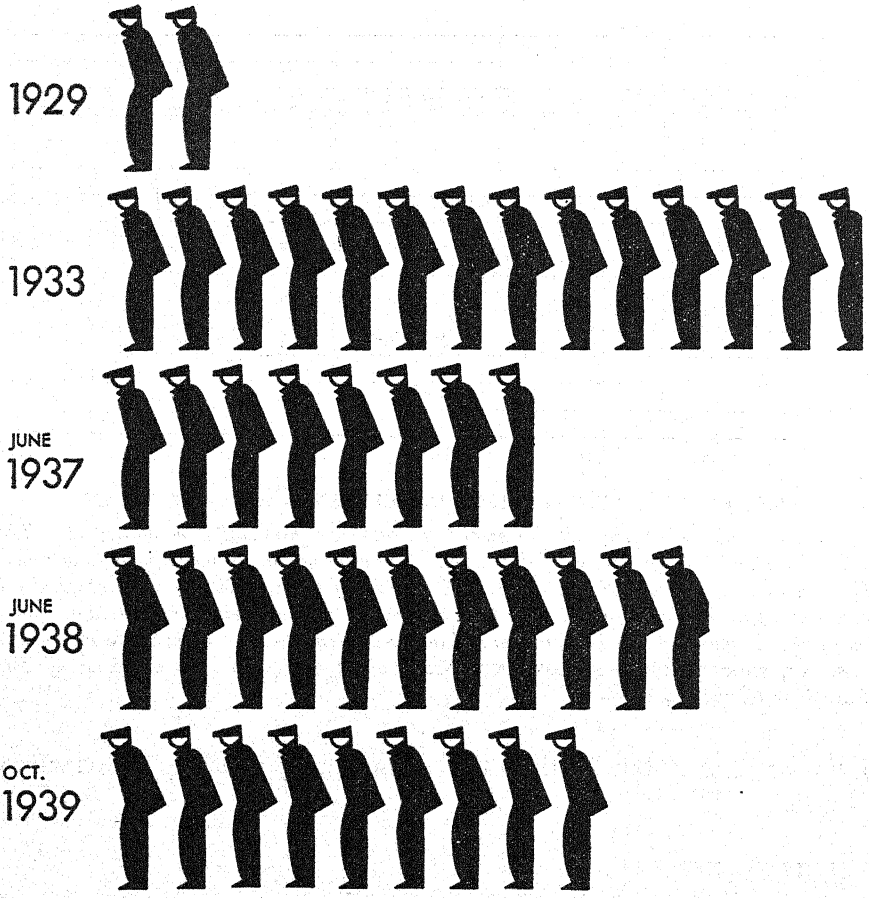
It is not usually recognized that in normal times there is a good deal of unemployment. The peaks in the curve occur at periods of depression. The estimates are for the occupations of manufacturing, mining, transportation, and construction, which of course do not include all of the available laborers in the United States. For these occupations the above chart shows very well the relation between unemployment in depression and in non-depression years. From PAUL H. DOUGLAS, THE PROBLEM OF UNEMPLOYMENT *(New York: 1934), p. 29. By permission of The Macmillan Company, publishers.*

it in wartime. But in time this stimulated purchasing power must recede.

UNEMPLOYMENT

From the human point of view, unemployment is worse than loss of dividends. A system that does not provide work for the population is *ipso facto* to be criticized. Few experiences are so tragic as to be unemployed, with no money, in debt, and with a wife and little children to support. As a cause of loss of morale, as a source of despair, unemployment ranks with sickness. The greatest cause of unemployment is business depression

Figure 107 shows the estimated percentages of unemployed in the United States from 1897 to 1925, in manufacturing, mining, transportation, and construction. The peaks were in the depression years of 1897, 1904, 1908, 1914, 1921, and 1924. For the more recent years, the estimates cover all occupations. Figure 108 shows the estimate of the number of unemployed made by the American Federation of Labor. These figures represent the unemployment situation as it stood at the height



From Pictorial Statistics, Inc.

FIGURE 108. UNEMPLOYMENT IN THE DEPRESSION OF THE NINETEEN-THIRTIES

Unemployment in the nineteen-thirties reached tremendous proportions. Unemployment is one of the greatest tragedies that can happen to man, and it cannot be fully appreciated by those who have not experienced it. Even in the fairly prosperous year of 1937 there were about eight million unemployed. If the large volume of unemployment continues through another period of prosperity one may well wonder what serious effects it may have upon our nation's life and character. From AMERICAN FEDERATION OF LABOR, MONTHLY SURVEY OF BUSINESS, *no. 97, November, 1938, no. 2, p. 41. The "true" number of the totally unemployed in 1937 is estimated to lie between 7,822,912 (the number responding to the special request of the federal government for voluntary registration of unemployment), and 10,870,000 (the number indicated by the partial enumerative check-up).* FINAL REPORT ON TOTAL AND PARTIAL UNEMPLOYMENT, *1937 (Washington: Government Printing Office, 1938), vol.* I, *p.* xvi.

of prosperity in 1929 and the depth of depression in 1933. The upward trend, resumed in 1934, was interrupted in 1937–38. The figure shows that nearly 2,000,000 were unemployed in 1929; 13,700,000 in 1933; and that in 1937, although industrial activity approached 1929 levels, 8,000,000 were still without work, except for the 2,400,000 employed on W.P.A. The continuance of large numbers of unemployed since 1930 has given emphasis to the theory that business cycles have long-time swings, as well as the short swings of approximately four years.

Another cause of unemployment is the seasonal nature of industry. Agriculture has a dull season in the winter; the peak of retail trade is around Christmas time. The automobile industry has an uneven period of employment, since fashion calls for new cars around the first of the calendar year. Consequently at certain seasons of the year there are more unemployed than at others.

A third source of unemployment is the fact that in our complex society the means of getting the right man and the right job together are slow and cumbersome, despite a highly integrated system of national and state employment agencies.

While business depressions are the great cause of unemployment, yet in the very prosperous years of 1928 and 1929 approximately one in fifteen or twenty workers was unemployed,[1] depending on how the available labor supply is measured and how unemployment is defined. These persons may have been unemployed because of the seasonal nature of industry and because of delays in finding jobs. On the other hand a fourth source of unemployment, technological advance, may have contributed to this volume of unemployment. This period was one during which many new labor-saving machines were introduced into industry, throwing men out of work. The talking picture is said to have taken the jobs away from 10,000 musicians who played in orchestras in moving-picture houses before "canned" music came in. There were thus little "pools" of unemployment around the motion-picture houses. In time such pools evaporate. The unemployed musicians get jobs in other orchestras or find work outside the field of music. If times are good and the unemployed are young, the evaporation takes place more rapidly than if the persons are old and there is a period of depression. So also

[1] PAUL H. DOUGLAS and AARON DIRECTOR, PROBLEMS OF UNEMPLOYMENT (New York: The Macmillan Company, 1934), p. 29. Also EMPLOYMENT IN PHILADELPHIA, Releases of Industrial Research Department, University of Pennsylvania, no. 21, May, 1934. See also National Resources Committee, TECHNOLOGICAL TRENDS AND NATIONAL POLICY (Government Printing Office, 1937), p. 70.

pools of unemployed were created around the cigar factories. Cigar-making machines that made three or four thousand cigars in an eight-hour day threw 30,000 skilled cigar workers out of employment. Automatic controls used in operating trains in New York subways mean that only two men are now needed to do the work that before required about eleven men. On large ocean-going oil-burning liners, three firemen attired in white, tending gauges, replace a hundred or more stokers. When mechanical firing apparatus was installed by western railroads, 17,000 firemen were released. Just as improvement in machinery displaces workers, so also does improvement in managerial efficiency cause lay-offs.

The foregoing analysis shows that it is almost impossible to say how much of the unemployment at any one time is due to the introduction of labor-saving machines. During the nineteen-twenties in those years when productivity increased, the "technologically unemployed" may have been from 25 to 50 per cent of the total unemployed. Technological unemployment,[1] though abundantly advertised in the early years of 1930 by a group known as the "technocrats," is not a new phenomenon. In the early days of the factory system in the 1800's, workers whose jobs were displaced by machines often reacted with violence, destroying the new equipment. At the present time, however, new and improved machinery is being introduced very rapidly; and, with much unemployment already existing, the "pools" of technological unemployment do not quickly disappear. Unemployment seems to be due in large part to business depression and to the rapid introduction of machinery, hence it is not wholly caused by the laissez-faire feature of the economic system.

MONOPOLY

The greatest menace to the operation of the competitive capitalistic system is monopoly, which means the control of supply. Under monopoly, no competition is permitted to undercut prices. A private unregu-

[1] National Resources Committee, TECHNOLOGICAL TRENDS AND NATIONAL POLICY, p. 82. The idea of technological unemployment is quite complex. The concept quoted above may be illustrated as follows. If 100 workers were required in 1928 to produce 100 units, but in 1929 79 workers were required to produce 105 units, then 1 worker produced 33 per cent more in 1929 and hence 25 per cent fewer workers would have been required to produce the same amount. But the amount of production increased 5 units, hence there are 26 (105 — 79) fewer jobs available than there would have been had the rate of productivity in 1928 continued in 1929. And if there were 52 unemployed in 1929, then in this year of increased productivity 26 unemployed, or one half, would be due to increased productivity, which may have been due to the installation of more or of better machines.

lated monopoly maintains the price which will give it the greatest total profit. It is usually a high price, for competition keeps prices down. Competition is a price protection for the consumer that does not exist under monopoly.

The trend is away from competition, and toward monopoly. Competitors tend to kill one another off by undercutting prices. This process is not possible in agriculture where the farmers are so numerous and scattered, but it is, for instance, in railroads. When only a few owners of a particular business remain, they often get together and agree on a price that will give each one a profit and put an end to cutting each other's throats. Such cartels may exist for a considerable time, since the more capital that is required to start a business, the more difficult it is for new competition to arise. Thus it is difficult to start a new newspaper in a big city because of the capital and time required. Perfect monopolies, such as the post office, seldom exist, though there are many large corporations that exercise considerable control over prices. The manufacture of steel is in the hands of eight or nine companies, and there is a good deal of concentration in oil and sugar. Competition may exist between these large companies, though it is not often severe. In the two decades 1900–20, there were 2300 bank mergers involving about 4500 banks. In the subsequent period, 1921–31, half as long, there were more than twice as many mergers, 5094 in all.[1] Thus, there has been a continued increase in the concentration of capital, until in 1933 the 594 largest corporations constituting slightly more than one tenth of one per cent (.0015) of all corporations (338,564) owned 53.2 per cent of the total assets of all corporations.[2]

Just as there is little perfect monopoly, but plenty of degrees of control over prices, so there is no perfect competition but rather a great range of practices that reduce competition. Thus minimum wage legislation in reducing wages reduces the range of competition. Trade union agreements operate with the same result. The codes of manufacturers' associations limit the practices of members, and thus reduce competition also. Cutthroat competition is replaced by a rather mild form in many industries.

The trend away from competition is viewed with alarm by nearly all observers because it results in the maintenance of high and rigid monop-

[1] J. M. CHAPMAN, CONCENTRATION OF BANKING (New York: Columbia University Press, 1934), pp. 53–60.

[2] BIG BUSINESS: ITS GROWTH AND ITS PLACE (New York: Twentieth Century Fund, 1937), p. 54.

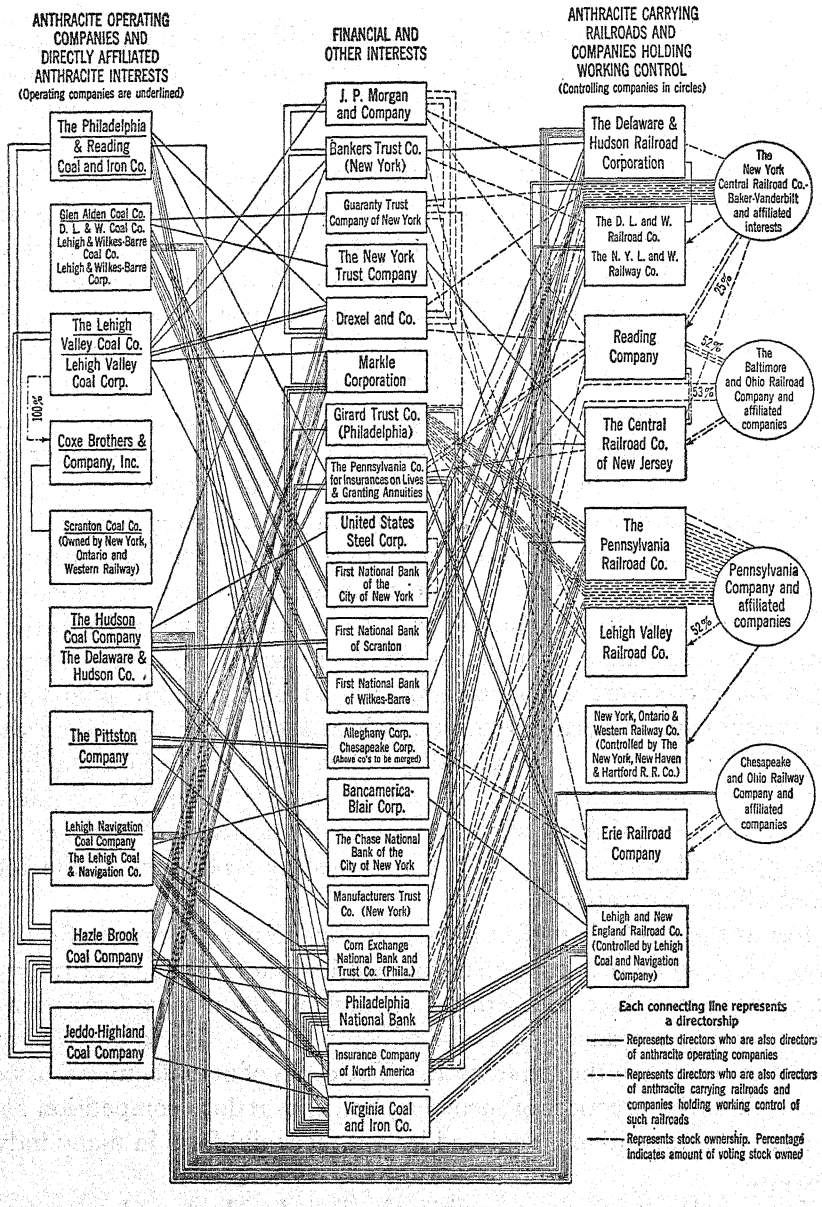


FIG. 109. INTERLOCKING DIRECTORATES AND MONOPOLY

The trend away from competition is very well illustrated by the above chart showing the nature of the interests controlling anthracite coal. A very common device is that of the interlocking directorate, one of the most significant trends in our present economic age.

olistic prices. These observers agree that monopolies should be regulated, but regulation has proved a difficult task. The railroads, a monopolistic business until the coming of the automobile, have been regulated since 1887 by the Interstate Commerce Commission, with not exactly perfect success. The success in regulating the price of electricity has been far from what is desired. Still, practically no one wants to leave monopoly unregulated. An alternative to regulation of monopoly is state ownership, which has also many difficulties. A third and very popular policy, tried out under the Anti-Trust Act of 1890, is to prevent monopolies. This policy has also worked none too well. It will be noted that in all three policies the abandonment of laissez-faire is predicated.

THE SOCIAL CONTROL OF INDUSTRY

The regulation of economic agencies in modern society has been mainly in the field of public utilities, that is, in those industries that provide (1) key services to other industries or (2) essentials to human beings. Of the second type, milk is an illustration. A commodity of such importance to babies and children cannot be well left unsupervised, any more than city streets can be left unpoliced. Dairies must be inspected to see that the cows are free from harmful bacteria. The railroads, utilities of the first type, render key services to industries, since they depend on railroads for the transportation of their raw materials and of their finished products. If there is only one line between two cities and no boats or busses, it is a monopoly. Hence businesses are the gainers when the railroad rates are kept down by a regulating commission. Similarly, everyone depends on the banks; hence examiners are needed to see that the assets of banks are sound and that the funds are sufficiently liquid. So important a commodity as money must be regulated. Certain utilities, such as the mails, governments have taken out of the hands of private individuals altogether.

The regulation of economic activities is not new, but is as old as economic organization itself. The accounts at the beginning of this chapter show that primitive economics was really societal economics, that is to say, trade and production and property were all overlaid with the customs of the community and the values of society. In other words, the economic activities did not exist completely apart from the other social institutions, but were tied in closely with them. Economic life was particularly close to the family institution under the household economy. The head of the house exercised a family control over the economic processes, which were not left unregulated. When the economic system outgrew

family control, industry tried to exist for a time without much relation to the other social institutions. This was called the laissez-faire period. It was thought by the classical economists from Adam Smith to John Stuart Mill that the economic system would work smoothly, balancing supply and demand and dividing income justly, if it were unregulated.

But industry could not exist for long, relatively unrelated to and independent of the other social institutions. The state took over in places where the family withdrew. This is what most social legislation is, the substitution of state for family control. Although the state was the main institution with which economic organization was being related, it was not the only one. For instance, the churches in their codes of social action have asserted that industry ought not to exist uninfluenced by moral considerations. Thus the popes have issued encyclical letters on what is good and exemplary conduct for industries, and various other churches have made pronunciamentos that industries must conform to the principles of ethics. The quickly growing giant, modern industry, is being initiated into the order of the other social institutions and is conforming to the mores of society. The state at the present time is playing the greatest rôle in this process. The further development, as in Europe, of the control of industry by the state is presented in a discussion of the union of state and industry in a succeeding chapter on the interrelations of institutions.[1] Economics as a study is becoming "political economy." Perhaps it may become again a societal economics, as it was during the hunting cultures.

The account given in this chapter is of an institution that has undergone numerous changes in the past. Curiously, while acknowledging past changes, each generation entertains the belief that its present institutions are permanent. Our survey shows this belief to be an illusion. Capitalism was preceded by other systems; capitalism itself has been in existence only a relatively short time, in terms of centuries; recently in a number of countries private capitalism has been radically modified or replaced, for the time being at least, by different economic systems. No social institution endures unchanged forever.[2]

[1] Chapter XXIII.

[2] JAMES HARVEY ROGERS, CAPITALISM IN CRISIS (New Haven: Yale University Press, 1938). "If there is one uniformity in the universe in which we find ourselves, it is change. To this uniformity the world's economic systems are unlikely to prove exceptions" (p. vi).

SUMMARY

Our present elaborate economic organization had its humble origins in the food-gathering cultures hundreds of thousands of years ago. Among primitive hunters there is no separate economic organization such as we have today, but a beginning is found in the division of labor between men and women. The family carries on important economic activities which are supplemented by those of the community. Since communities are self-sufficient, they do not depend on trade.

Within the community, the chief mechanisms of exchange are hospitality and gifts. Services are rendered or goods given without payment, but with the expectation of a later return in kind. Although there is private ownership of personal property such as clothing, weapons, songs, and dances, collectivism exists in regard to the basic means of production such as land and the food supply. A man can gamble away his weapons or his blankets, but not the hunting grounds. There is thus a group emphasis on basic social security. This, however, is due not to altruism but rather to the prevailing conditions of life. Chiefly because of the relative scarcity of material goods, primitives generally strive not so much for private gain as for status and reputation.

The development of agriculture, and of the parallel pastoral economy, meant a more certain and substantial food supply and a larger population. Further development of the handicrafts, for example in pottery and weaving, led to trade, exchange, payment, and specialization. Eventually the pastoral life and agriculture were brought together in the farm life as it appears in the historical period.

By now property had become highly developed. The handicrafts flowered, enriching the material culture, increasing the social emphasis on the acquisition of material objects, and extending still further the principle of the division of labor. Another great step forward was taken with the development of power beyond that supplied by human beings and domesticated animals, especially the development of steam in making steel tools. More recently, electrical power and industrial chemistry have contributed greatly to the enrichment of our material life.

The older family and feudal economic organizations were not adequate for financing the new abundance. The corporation was evolved to meet the need for extensive capital, thus furthering the present economic

system of capitalism. Often the corporation is so large that ownership is divorced from management, and both are removed from intimate contact with the workers, a situation which results in impersonal and unsatisfactory labor relations and a marked inequality in the distribution of the wealth produced. There is also much difficulty in providing regular employment. Our complex economic system depends for smooth functioning on the synchronization of many parts, which are easily thrown out of gear, leading to depressions and unemployment. The large-scale introduction of automatic machinery also creates considerable unemployment, at least temporarily.

Moreover, when business declines, production is cut but not necessarily prices. This fact is due to the growth of monopolies in one industry after another. It is difficult for competition to arise because of the tremendous amount of capital required to start a business. To protect both workers and public against exploitation, government undertakes to regulate some businesses and to aid other businesses. Even though such regulation has been carried to the farthest point in countries with a totalitarian ideology, there has been no little control even in democratic countries.

QUESTIONS FOR DISCUSSION

1. How does the economic rôle of the family in primitive society compare with that in modern society?
2. Is it a good thing for men and women to share the same jobs, or is a sharp differentiation of labor more desirable? Why?
3. Does the evidence found in primitive cultures show trading to be a universal phenomenon? What is the origin of trade? The significance of trade?
4. What is the rôle of hospitality and gift-giving in the economic life of primitives? What is its rôle today?
5. What, in your opinion, are the advantages of the economic organization of primitive hunters over modern economic organization? What are the disadvantages?
6. Does man's long economic experience throw any light on which is the stronger incentive: working for the welfare of the whole group or for one's own profit alone?

7. How does the incentive of reputation compare with the desire to gain property in stimulating economic activity?
8. How is the economic organization of a people dependent upon their material culture? Illustrate.
9. What was the economic significance of the development of the handicrafts? How is the origin of the city related to specialization and the development of the handicrafts?
10. What is the social significance of increased specialization?
11. How are recent power and chemical inventions likely to affect the growth of the economic organization?
12. How are the present difficulties between employers and employees related to the power inventions?
13. Do machines create jobs for more persons than they displace?
14. What distinction does the primitive make between public and private property? What is the significance of this distinction? What sort of distinction do we make between these two kinds of property today?
15. What are the distinctive features of capitalism? How efficient is capitalism compared with preceding systems?
16. How do inequalities in wealth under capitalism compare with those which existed under feudalism?
17. Is competition the life of trade? What are the advantages of monopoly production?
18. Is government control and regulation of business inevitable? Desirable?

TOPICS FOR REPORTS

1. The social implications of recent changes in division of labor between the sexes.
2. A comparison of labor relations in feudal and modern society.
3. The mechanization of agriculture.
4. Economic organization of a rudimentary society like that of the Andaman Islanders.
5. Technological unemployment.
6. The social consequences of the concentration of wealth in the United States.

7. Unemployment insurance in the United States, private and public.
8. National Resources Committee, CONSUMER INCOMES IN THE UNITED STATES (Washington: Government Printing Office, 1938).

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The classic pioneering study of social conditions in the world's biggest city resulting from the industrial revolution. Valuable as a concrete picture of pronounced social lag and disorganization attendant upon revolutionary technological change.

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The second and latest authoritative estimate of American family income based on nation-wide field studies. Valuable data for considerations of economic opportunity in our democracy.

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Volume I, chapter V, "TRENDS IN ECONOMIC ORGANIZATION," *by* E. F. GAY *and* LEO WOLMAN, *traces economic changes in prices, income, wealth, volume of production, business, organization and combination, banking and credit since the World War.*

Volume I, chapter VI, "SHIFTING OCCUPATIONAL PATTERNS," *by* R. G. HURLIN *and* M. B. GIVENS, *recent changes in the number and composition of gainful workers and occupational groups, with some attention also to occupational insecurity and unemployment.*

Volume II, chapter XVI, "LABOR GROUPS IN THE SOCIAL STRUCTURE," *shows recent changes in the status of labor in the United States, changes in standard of living, in trade-unionism, and industrial relations.*

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For a picture of economic changes during the past half-century, use this book, together with RECENT ECONOMIC CHANGES *(New York: National Bureau of Economic Research, Inc., 1929, 2 vols.); also the chapters in* RECENT SOCIAL TRENDS *indicated above.*

XX. GOVERNMENTAL INSTITUTIONS

GOVERNMENT is one of the major factors in our lives today. When we are born our birth must be registered with the government. Governmental regulations regarding sanitation and contagion protect our childhood. Education is furnished for us by the government. We must get the government's consent to marry. In building a house to live in we must conform to the legal specifications regarding space, light, plumbing, and water. A fair-sized proportion of all the money we earn must be paid to the government in taxes. State policies affect the price and amount of food and clothing and fuel we consume. They also regulate our recreational activities and tell us what we can and cannot do. In many countries government provides medical care for us when we are sick, gives us aid when we are out of work. It protects us from enemies on the outside of our state and from hazards within our community. It forces us to send our children to school and will not let us permit them to work for pay until they become of a certain age. If we would travel outside our country, we must first secure permission from the government. Nor may we separate from our mates and marry again without the consent of the state. If the state is in danger we fight for it. As we become too old to work the government helps to take care of us. Even our passing, through death, must be registered with the government, and if we have no money for a burial the government will bury us. So from the cradle to the grave every day of our lives we come in contact, directly or indirectly, with the government.

Governments render these services and exert these controls through national and local agencies of many different types. Some are democratic and others dictatorial. In some countries the government's purpose is to serve the individual and in others the individual is said to exist for the good of the state. There are many questions as to what functions the government should undertake, and as to how they should be performed. In order to understand the rôle of government among the various social institutions it is desirable to take a look backward at its origins and to see something of how it has varied in time.

Government in the Simplest Material Cultures

Among the peoples living today with the simplest material cultures government is very simple and hardly discernible. Such peoples are, for example, the Andaman Islanders, the Tierra del Fuegians, the Bushmen, and the Shoshone. They have no specially constituted government, as may be seen from the fact that they have no established rulers. "There is not," writes Thomas,[1] "one story about a chief or a chief's daughter in all Bushman folklore known to me." The Ona of Tierra del Fuego are likewise without constituted leadership. When a special occasion arises which calls for group action, a temporary leader may be selected. In the case of murder, a relative of the man to be avenged is generally chosen to lead the punitive expedition.[2] His leadership ceases when the work is done.

In these societies there are certain individuals who exercise some influence over the other members of the group. Among peoples who have no written records, it is generally the older men who are looked up to, for the old people tend to become the repositories of the historical records, the folk lore, the myths, and the religious knowledge. Besides, their long experience with the hunt and other activities gives them a position of prestige and authority. Their position is such that their advice is sought after, and their influence undoubtedly becomes a method of keeping order in the community.

There is also an orderliness in the activities of any individual or group of individuals due to repetition. The basic human needs are recurrent; for instance, food and sleep must be had every day. On this account, there is considerable regularity to group activities. In other words, daily living for a group assumes a certain amount of orderliness.

It is seen, then, that order is maintained to a great extent among these simpler peoples by virtue of repetition and by virtue of leadership. Such, indeed, is also the case among the apes and the higher animals. The regularity in the pursuit of food and the presence of a leader maintains enough government to permit group life. It should be recognized, of course, that leadership may be a cause of disorder as well as of order, for leaders quarrel and fight for dominance. But as long as leadership and repetition provide an orderly life there is little need for government.

[1] W. I. Thomas, primitive behavior, p. 422.

[2] R. H. Lowie, an introduction to cultural anthropology (New York: Farrar and Rinehart, 1934), p. 223.

THE LIMITED NEED FOR GOVERNMENT IN THE SIMPLER CULTURES

There are several factors that limit the amount of disorder among peoples with simpler cultures and diminish the need for government. One is the size of the groups, which are small in comparison to modern communities. As we have seen, among food gatherers and hunters the supply of food is not large enough to maintain a big population. The communities usually range in size from 15 or 20 persons to 150 or 200. Under the circumstances, each person knows every other person well; gossip and public opinion are always available as potential sources of social pressure. In a large modern community with its impersonal contacts, things are very different. Indeed it may be doubted if any practicable system of policing can be supplied which is entirely adequate to the needs of a modern city. "... the New York City police force," writes its Commissioner,[1] "is not large enough and never will be, to control all the cellars, back yards, vacant lots, and other places where ... offenses are committed." A small group is much simpler to govern than a large one.

A second factor affecting the amount of misconduct in a society is the number of abnormal persons in the community and the kind of adjustment they make. Unfortunately, no definite information is available on the relative number of abnormals in primitive and modern society. The percentage may have been smaller among the peoples who lived in the hunting culture, for it was a type of society in which human beings had lived for hundreds of thousands of years, and hence had probably worked out a fairly satisfactory adjustment. Many types of defectives who survive in our society are cut off by the more rigorous conditions existing in the simple cultures. A feeble-minded person, or one with poor eyesight, let us say, finds survival difficult in a hunting culture. Finally, those abnormals who remain may not be regarded as problems or menaces. It should be noted that the religions of many primitive groups are such as to socialize the conduct of those who seem to have neurotic tendencies. An epileptic may be regarded not as a social misfit but as a savior. Such, at least, is the interpretation of the shamans, medicine men, and the priests of the American Indians. The world of magic so common to primitive cultures is one which seems to help the adjustment of the abnormal.

Still a third characteristic of these simple societies making a formal

[1] AUSTIN H. MACCORMICK, "NEW YORK'S PRESENT PROBLEM," MENTAL HYGIENE, 22:4–10, January, 1938.

government unnecessary is the stationary character of the culture. When social conditions are the same for long periods of time, lessons may easily be learned from experience and the best ways of doing things worked out and made known to each member of the group. The result is a homogeneous culture, one in which individuals see eye to eye on essentials. In a heterogeneous, rapidly changing culture like our own, on the contrary, many different points of view and conceptions of right and wrong develop, which pave the way for misconduct. There would thus seem to be less provocation to wrongdoing in a simple society than in one which is complex and rapidly changing.

Finally, a fourth condition is that most of the crimes today are against property. Among the simpler cultures there is very little private property, for the reason that the material culture is little developed. Also, in a very small community the personal property of each individual is known to every other individual, hence there is not much a thief can do with stolen goods, especially if trade and travel are little developed.

It would be a mistake, however, to believe there is no misconduct whatsoever among the lower hunters. For example, there are sex irregularities, that is, deviations from the prescribed rules. Slander is another type of conduct that is resented, since reputation is highly valued among primitive peoples. There is fighting due to personality clashes or to differences in interests and tastes. Offenses against the religious sanctions are also a possible source of difficulty. There is a problem of order among primitive peoples despite the favorable conditions of their group life for regularized conduct.

AGENCIES OF SOCIAL CONTROL IN THE SIMPLEST MATERIAL CULTURES [1]

The governing agency which deals with misconduct is not always the state. In our times such governing is a most important function of the state, as is evidenced by the courts and the police. But it is also true that the school, the church and the family are concerned with problems of conduct. Among primitive peoples the family handles many problems of conduct, much as does the family today. This fact is implied in the terms, matriarchal type of family, where the wife and her kinsmen have a good deal of power and influence, and patriarchal type, where the husband has more authority.

[1] For a discussion of the types of control in primitive culture the student is referred to L. T. HOBHOUSE *et al.*, MATERIAL CULTURE AND THE SOCIAL INSTITUTIONS OF THE SIMPLER PEOPLES (London: Chapman and Hall, 1915).

The most impressive evidence of the power of the family to deal with misconduct is the feud, in which reprisals are taken by the family of the injured against the family of the person committing the injury. With the notable exception of the tribes in Africa, this practice is extremely widespread among primitive peoples of varying levels of material culture. Indeed, the family feud as a means of settling disputes has persisted in various parts of Europe and the United States down to the present day. In some regions of the southern Appalachians, the mountaineers seem to prefer to settle certain personal problems by agencies other than those of the state. It seems to take some time for the mountaineers to learn to relinquish to the law power over matters which in the past have been in the control of the family.

There is another organization among hunting peoples that has some regulatory power. It is a quasi-family organization much larger than the blood family, usually referred to as the clan. It is a kinship organization, which may stretch across several villages, consisting of individuals who either are or are assumed to be related and who trace their descent from a common ancestor. The clan has some power as truly as has the immediate family, even in the disciplining of children. As will be seen more fully in a later chapter,[1] one of the most important clan functions is the regulation of marriage. The clan has also a number of other functions, including principally the rendering of various social services to its members. Very probably the clan is a later development among the hunting peoples.

Orderliness is also maintained by various associations, such as age societies, sex groups, and secret orders, found variously among the primitive cultures. These groups have rules of conduct which are apparently enforced by the associations. For example, among the Kai, Tami, Yabim and Bakaua tribes of northern New Guinea, the initiated men are organized into a religious brotherhood, called the bull-roarer society, which has as one of its principal functions the discipline of the women and the uninitiated males of the community. Females and uninitiated males are excluded from the activities of the society and are controlled by being kept in continual awe of the bull-roarer. At puberty, the young boys are taken from the village into the brush where a large hut has been built in the shape of a monster. Inside the hut are stationed a few of the older males who swing the bull-roaring instruments, which are merely flat pieces of wood having serrated edges and tied to the end of a string. However,

[1] Chapter XXII.

the young males believe, as do the women, that the roaring noise comes from the bosom of the monster and are greatly impressed. A ritual follows which symbolizes the young boys being swallowed by the beast, later to be regurgitated as full-grown men. During this process the boys are circumcised. After the ceremony they remain in the hut for several days, then are brought back to the village where much rejoicing and feasting follows in recognition of their young manhood.[1]

Thus it may be said that among the lower hunting cultures several different organizations maintain order, deal with crime, and enforce discipline. The question arises as to whether there is present also a separate organization whose main function is governing, as is the case with the state in modern society. Was there a state in the lower hunting cultures? Has there always been a state? Or was it a social invention occurring later than the early hunting cultures? If it was a social invention, how did it originate?

THE NATURE OF THE STATE

Before trying to answer these questions about the state, it is desirable to consider further what the state is. In previous paragraphs it has been assumed that it is an organization whose main function is policing or the administration of justice. But it is true that the state may do other things. It may conduct a war, organize recreation, or manage a business. The state, then, may have many functions in different cultures. Is there any function that is common to states in all cultures? In general it would seem that the maintenance of order in a given territory for a group or community as a whole is the function most commonly found. Other groups, such as the family and the clan, may be responsible for limited phases of social control, but the state is sovereign. The state is a distinct and separate social institution with ultimate control over all other groups found within the given area.

There does not seem to be a governmental organization, separate from other social organization, in very simple material cultures. But there may be discerned the beginnings of such an organization, and these beginnings may be viewed as the origins of the state.

One of the sources of the idea of the state seems, among some peoples, to have come from the organization of hunting parties. These are activities that call for discipline, and have at times somewhat the aspect of a

[1] J. G. FRAZER, THE GOLDEN BOUGH (New York: The Macmillan Company, 1923), pp. 694–95.

crisis or war. Because the welfare of the group is dependent upon efficient and co-operative conduct in the hunt, the leader may develop policing power on such parties. Such was the case among the Shoshone Indians. The hunting party is a group that is outside the family and beyond the clan and represents the transference of the policing function from the family to another organization, temporary though it may be.

Another idea in the conception of the state is a recognition of the territory to be ruled. This idea was much more developed in early times in agricultural regions, and in modern times when property is so important, than it was with the hunters, whose mode of living does not center their interest so much upon territorial boundaries. Their attention is focused rather on the group as defined in other ways than by the limit of the territory it occupies. But however defined, the group as a whole is recognized among many primitive hunters as something larger than family, clan, village, or secret society. Evidence of this is found in the great difference in attitude toward the same offense committed by one who belongs to the tribe and by an outsider, that is, one who comes from a different territory. The punishment is different in each case. However, the members of these groups do not have a very clear conception of an entity such as a nation or state to which they must be loyal and obedient.

FACTORS IN THE ORIGIN OF THE STATE

The origin of the state, then, lies in the development of the function of maintaining order in a given territory.[1] It can be seen that a crisis involving the whole group or territory is the sort of situation out of which the idea of discipline for the whole group would arise. Serious competition between whole groups would also seem to be favorable to the origin of the state. A good example of the beginnings of a larger group unity is furnished by the experience of the southern Bushmen, who were described above as living in small groups without definite leadership or government. In periods of crisis, however, they do resort to organization, as when they unite to meet the invasion of the Hottentots and Kaffirs. In other words, war is very favorable to the development of the state, and is so recognized by many writers.

But war itself must have been invented or have had a beginning. While fighting may be instinctive and common to many animals without culture, war between groups is an organized activity that it was necessary to learn. As Malinowski has observed: "To label all brawling, squab-

[1] For a fuller discussion, see ROBERT H. LOWIE, ORIGIN OF THE STATE.

bling, dealing of black eye or broken jaw, war, as is frequently done, simply leads to confusion. War can be defined as the use of organized force between two politically independent units, in pursuit of tribal policy. War in this sense enters fairly late into the development of human societies." [1]

Fighting between different groups was the beginning of war. Sometimes these fights tended to resemble reprisals as in the case of family feuds and sometimes the mere form of a battle with very little ferocity seems to have satisfied the demands of the occasion. The development of material culture to the point where there was property in stored grain, or cattle, or other material objects created a situation more favorable to war. At least well developed war is found only among the cultures with considerable property. Very common is the raid, a sally of one party against another, but not always, of course, for property. Fighting to acquire land was not the purpose of very early wars, for many primitives have the feeling that a people and its land are inseparable. But later, under the plow culture, land became a highly prized object of possession and the idea of a people acquiring more territory developed.

War and the growth of the state. War is favored by new means of transportation. The radius of the group's action is thus increased. The domesticated horse, the longboat, the sailboat, and the airplane all tended to make one group impinge on another. The boat of the Vikings became an agency of aggression all along the western coast of Europe, as did the horse on the borderland between Asia and Europe. When the Plains Indians in America took over the horse from the Spanish, the tribes were thrown into closer contact and friction leading to war developed.

War, piracy, and raids, like the hunting party, develop agencies of discipline, especially when tribute is exacted from the conquered peoples. When a war leads to slavery of the conquered peoples another step in the development of rule is taken. The rôle of slavery in the development of the state has perhaps been emphasized too much, since the status of individuals captured as slaves is often like that of members of the household and has little to do with the state. However this may be, it is clear that conquest, in providing a subject population to be ruled, develops the group consciousness, loyalty, and discipline which are essential to the existence of the state.

[1] B. MALINOWSKI, "CULTURE AS A DETERMINANT OF BEHAVIOR," in Harvard Tercentenary Conference, FACTORS DETERMINING HUMAN BEHAVIOR (Cambridge: Harvard University Press, 1937).

The war chief was probably a factor in the origin of the state. A leader seems to arise at times almost spontaneously in any group, as the leaders appear at hunting parties, in festivals, and in ceremonies among the old men; the idea could be taken over in war, even if the exigencies of war did not make the need fairly obvious. The hereditary transmission of leadership is a later development. It is found widely scattered in Africa, Polynesia, and Micronesia, but rarely among the American Indians. The hereditary factor in leadership is correlated in primitive society with the inheritance of property and with the idea of social class or caste. Since these were generally lacking in the Americas, the democratic principle was more in evidence here.

The state takes more definite shape as the leaders do more things for the group as a whole. While collectivism of this sort is not very common among preliterate peoples generally, among the pueblo groups of the southwestern United States there are many functions undertaken for the group as a whole, such as the regulation of the time of planting corn, the disposition of certain lands, and the provision for ceremonies and festivals. The collectivistic idea was especially strong among the Inca, the preliterate people of Peru who, without the aid of a written language, built up an empire of three million persons along the South American coast.[1] Here the state rendered all sorts of services for the people, such as the frequent partition of the land among the dispossessed, the provision of steady employment, and the institution of old-age insurance. While the rendering of such services is not an essential part in the definition of the state, still it clearly helps to build up the state into a more significant entity.

The Development of the State

The evolution of the state

The discerning reader may already have observed from the preceding discussion that there is no linear evolution of the state from the early beginnings to the nationalistic governments of the present. Social institutions never grow through any series of stages which are common to all people. The reasons for this will be considered in the last chapter of this section, but here it would be well to observe the fact itself. As has already been seen, the American Indians had little political organization, but

[1] This estimate as to population made by A. L. Kroeber, "native american population," American Anthropologist, 36:24, January–March, 1934.

African tribes, although apart from their iron work no higher in material culture, had elaborate states; states which are comparable, indeed, to the lesser European governments of today. Among the Zulu, for instance, there was the ruthless despotism built up by the great chief Chaka at the beginning of the nineteenth century. With the help of a standing army of 15,000 men, he made the Zulu into the great South African power. So too there is extensive governmental development among other African tribes, like the Uganda, the Shilluk, and the Bushongo. The great elaboration of government among the latter can be seen from the following account:

> There are about 137 gradations and specializations of court functionaries under the *nyimi* (head chief and supreme judge) consisting of 18 legal officials, including a judge of crimes committed with a sharp weapon, a judge of stolen goods, a judge deciding whether death is from suicide, and if so assessing the fines against the parents, a judge of witchcraft, an agent who administers the poison ordeal, etc.; 5 military officials, including one to reassemble deserters and dispatch them to rejoin the army on the field of battle; 6 administrative officials, one of them to receive funeral taxes, another to give village chiefs girdles significant of authority; 16 representatives of tribes; 17 representatives of trades — hunters, fishermen, boatbuilders, blacksmiths, weavers, salt manufacturers, singers, dancers, etc.; a representative of the father of twins; 42 court officials with determined functions of sinecures with privileges, including presumptive heirs, bearers of insignia, a narrator of legends, a collector and appropriator of gifts brought to the *nyimi*, but dropped in the excitement of the donors, a collector (with an assistant) of gifts made to the *nyimi* by those recovering from sickness through his divine influence, an attendant for running before the *nyimi* to remove obstacles from his path; slaves on whom the *nyimi* sits; 14 women functionaries, including kindred of the *nyimi*, a head of the royal harem, one to put pepper in the eyes of disobedient women, and an assistant to attend the women while thus temporarily blinded, a teacher of songs to women, etc.[1]

Even though the evolution of the state cannot well be traced, it is possible to indicate factors and situations correlated with the conception of the state. Many of these factors and situations have already been indicated. These were leaders, hunting parties, policing associations, property, war, slavery, governmental functions other than maintaining order, and social classes. As has been shown, different combinations of these situations produced different types of government in various societies.

[1] W. I. THOMAS, PRIMITIVE BEHAVIOR, pp. 435–36 (New York: McGraw-Hill Book Company, Inc., 1937).

FEUDAL GOVERNMENT

Another element leading to government is the growth of power and property in the hands of a single farmer among a people of a common culture. The large landowner with slaves, serfs, retainers, followers, or laborers would naturally exercise a certain government over them. These rich men became chiefs or lords. In an age when policing was inadequate, there were piracy, pillage, and feuds on a large scale. One chief would conquer another and exact the payment of tribute, which he used in part to maintain competent fighters. In the course of time consolidations of territory and of retainers were affected, much as competition in industry leads to the monopolistic trust. The expansion of the holdings of a rich and warlike farmer led to government on a large scale. But long after a single king had risen to hereditary power over the whole area there continued to exist this feudal relation between overlord and vassals and serfs.

The process is familiar to readers of medieval European history.[1] But much the same system is found in Japan, China, India, and Asia Minor. It is important to note that the feudal system is found also among preliterate peoples in different parts of the world, such as Peru, Mexico, Africa, and Polynesia. The beginnings of feudalism among primitive peoples are found wherever there is a high development of the property system, for payment is made in goods to the chief. There is always also a class division between the rich or aristocrats, and the common people. Apparently there is not always the element of protection in war. At least much more apparent in some cases is the idea of personal loyalty or devotion. This apparent absence of protection in the loyalties to overlords in some cultures, like the Polynesian, suggests that war may not have been an essential factor in the rise of this type of economic-governmental relationship.

How the feudal system broke down and led to nationalism in Western Europe is described in the histories of that period. The consolidation of different tribes with different dialects into a large state was a slow process. The development of a money economy played a part in this change, since it was easier to collect money-taxes from a large area than a portion of the farm produce, as was the practice under feudalism. Gunpowder was of some influence since it affected the method of protection. Im-

[1] See D. C. MUNRO, THE MIDDLE AGES (New York: The Century Company, 1921), and LYNN THORNDIKE, MEDIEVAL HISTORY (Boston: Houghton Mifflin Company, 1917).

portant also were better methods of transportation, which led to wider areas of rule and hence to more powerful groups. There were developments in culture itself which led to the breakdown of the feudal system.

The competition of local big men did not always lead to the domination of one king over all. Sometimes these powerful chiefs developed a sort of federated government, much as competition in industry leads sometimes not to the single monopoly but to the cartel. Thus Indians in northeastern America developed a far-flung federation of different tribes or nations. So also the chiefs in Iceland, without ever having had a king got together a quasi-federation called the *Althing* which settled problems of common concern.

CITY-STATES

The government previously discussed dealt with small villages and agricultural areas. But in antiquity there were also relatively large cities which dominated the surrounding territory and were called city-states. Indeed some cities extended their power over a vast region and levied tribute on distant lands, especially where sea or land transportation was favorable. Athens and Rome in ancient times were of this type. When the territory ruled was very extended the states were called empires, as in the case of Persia, Egypt, Assyria, and Rome. These cities often grew up on water routes and prospered because of trade. In these cities wealth was not so much in land as in goods. Land, it may be observed, is a type of wealth that may be held for a number of generations and hence favors the hereditary principle. Land is also capable of supporting retainers and armies, especially where a castle gives protection. A hereditary nobility among the land aristocrats was a natural product of evolution. But in the cities, with the economic life less stable, the hereditary principle was less secure than in farming. The family and kinship system was less prominent in ancient cities than in rural areas, and the support to hereditary rule was less notable. Furthermore, the cities were more susceptible to change, with the overseas traders bringing in new ideas from other lands. Rich men and great warriors became rulers in the city-states but the idea of citizenry also developed. Democratic tendencies arose. The wealth to run the city came in part from the traders, though the city armies and navies conquered surrounding territory and levied tribute on these regions. Since wealth came from the citizens and the fate of a city involved the fate of the citizens, they shared more in the governing process. The origins of democracy were in the cities.

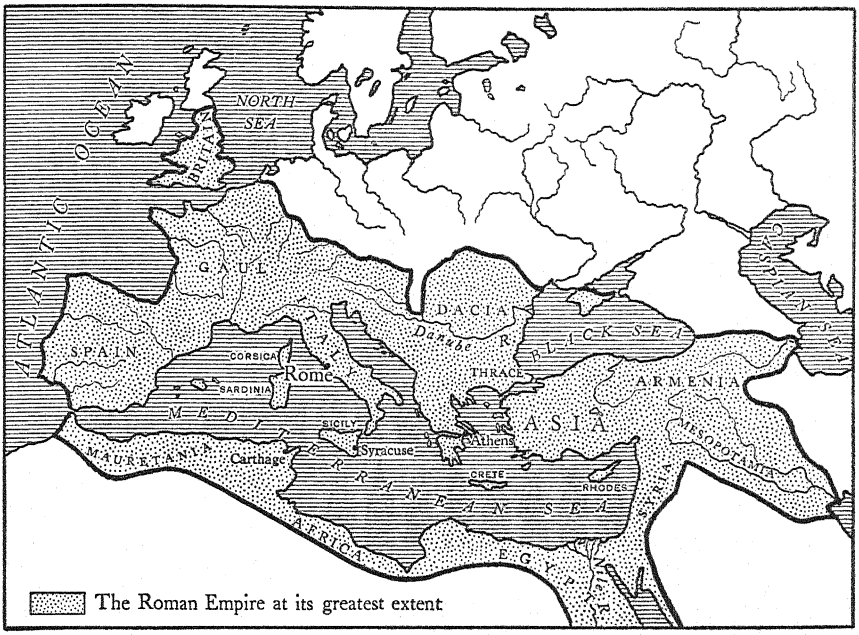


FIGURE 110. THE ROMAN EMPIRE, A.D. 167

The rule of the city-states over surrounding territory extended sometimes to distant lands, as is shown by the area under tribute to the Roman Empire at the time of its greatest extent. The empire represented, about A.D. 167, a great advance in the development of the state.

FROM MONARCHY TO PARLIAMENT

The modern era has been characterized by the passing of absolute monarchies and their replacement by limited monarchies and republics. Kings, czars, kaisers, and emperors were associated with the land economy, but they existed for a time in empires like the Roman and during the early stages of capitalism. Sometimes the kingship system was abolished more or less violently, and republics with elected officers were set up without any king at all, as in France. Sometimes the king was retained, but with his power drained away, as is the case with England. This result was achieved by parliament wresting power away from the king, through their control of the source of revenue, for it takes money to run a government and to support a king and his court. Originally the king derived his revenue from such sources as tribute laid on rich feudal farmers in his kingdom, and from the sale of various privileges. With capitalism, there came a different source of wealth and a different class of wealthy persons. The king's problem then was to get, not a portion of

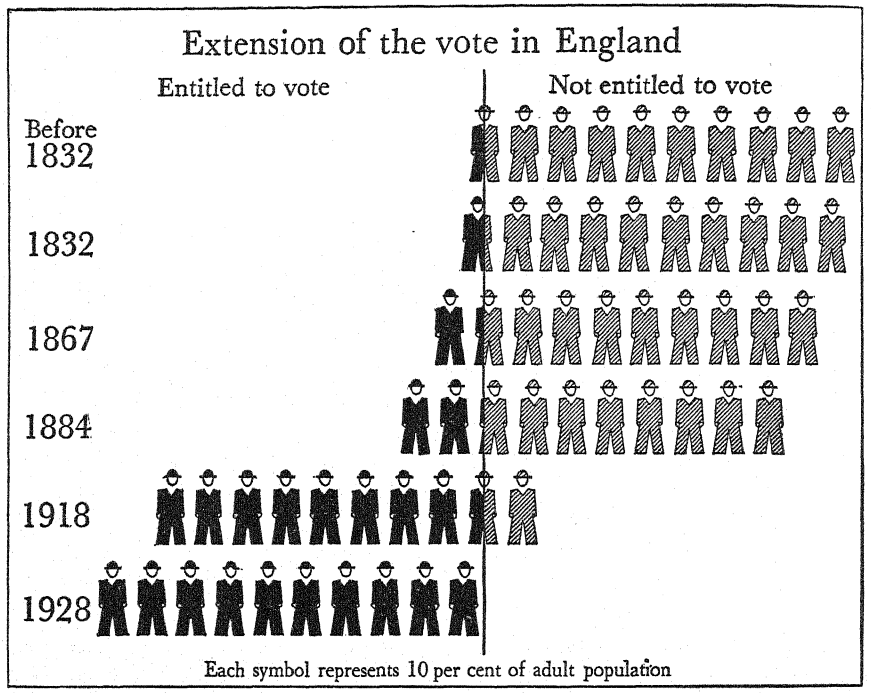


FIGURE 111. EXTENSION OF THE VOTE IN ENGLAND

The democratic practice of voting at elections developed gradually. Even in the United States in the early days of the republic, voting was restricted by property qualifications, and in some states today the payment of a poll tax is a prerequisite to the franchise.

the farm produce, but money. The tax system developed and with it, parliaments. The moneyed class was able to wrest power away from the monarch by withholding funds unless the king permitted it to have a hand in legislation.

DEMOCRACIES

With the breakdown of the king's power, democracies did not always arise immediately. The power usually passed to those who had property, rather than to the "people," that is, all adult citizens, poor as well as rich. However, the transition was sometimes made directly to the people. Such was the case in 1793 after the outbreak of the French Revolution. The common people were not able to hold the power they took, though, for Napoleon established himself as emperor. That the rank and file of the people should actually do the ruling and run the state was a very

radical idea at the close of the eighteenth century, more radical than communism is today. Sovereigns at that time had divine rights, dealt with profound matters of statecraft, and the government was clothed in aristocratic regalia, a magnificent expression of which was seen in the court of Louis XVI of France. Such was the atmosphere of government. To turn all this over to the barkeeper, the woodcutter, and the butcher was indeed a revolutionary idea.

In Athens the free citizens who helped determine governmental policy were always a minority of the adult population. Plato and Socrates were both hostile to democracy. In Rome, though its government was a republic for a time, democracy was even less in evidence than in Athens. In the United States there were many qualifications for voting, especially during the first few presidencies;[1] Jefferson organized political clubs among the people, but Andrew Jackson was the first representative of the masses. In modern times democracy has been encouraged by a wider education and a higher standard of living. The masses, because of public education and higher wages, are more capable of voting intelligently and are able to contribute more taxes.

Modern Problems of Government

Methods of defeating the will of the people

Democracies have extended the vote to practically all adult citizens, but that does not mean that the people rule. All the people have not the time, the interest, or the knowledge required to rule in a modern city or a modern state. The New England town meeting of decades gone by was an institution whereby the people ruled. They came to a meeting and after considerable discussion decided by vote what was to be done. But the New England town was a small, primary group, the issues were simple, there was no great hurry, and the citizens all had much the same background of ideas.

In some states today there are devices designed to give the people direct control over legislation; the initiative and referendum enable the rank and file of voters to propose and pass on legislation that is ordinarily handled by a legislature. But even so the voters do not always take an interest in the question submitted to them. One close student of direct

[1] Beard has shown how our Constitution was framed by the propertied class with a view to safeguarding and perpetuating their special privileges. Charles A. Beard, An Economic Interpretation of the Constitution of the United States (New York: The Macmillan Company, 1925).

legislation has said that only one in a hundred read the laws on which they vote.[1] If the measures are complex the voters do not understand them. Finally, the people as voters are subject to persuasion by the advocates who can bombard them with the most propaganda. In this case, the power lies not with the people, but with the few who can pay for the most extensive barrage of propaganda.

Usually the people do not vote on legislation, nor do they execute orders; they delegate these powers to representatives in legislatures or to executive officials. Even in such cases the will of the people may not be ascertained. The election may be controlled by others who would then be the source of power rather than the people. There are several different ways in which elections are controlled so that, though there are tens of millions of voters, actual political power falls into the hands of small groups. Some of these methods are the following:

1. Actual buying of votes.
2. Spending of money for propaganda in newspapers, radio, etc.
3. Voting the long ballot with too many names.
4. Making effective appeals by methods, such as kissing babies or singing over the radio, that have nothing to do with the issues at hand.
5. Controlling the nominations by party machinery, which may mean controlling the election.
6. Failing to provide an explanation of the issues.
7. Neglecting to vote on the part of many voters, leaving the issues to be decided by a roundup of voters by bosses, fixers, and special interest groups.

The political machine and party as a source of power. The wishes of the people may not be ascertained, or they may be defeated in these several ways. The source of power in a democracy, in cases where the people are not fully oriented and interested, is in those who thus circumvent the people. One of these sources is the inner group of the political party, often called the "machine," a particularly common feature of city politics in the United States.[2] The active members of a corrupt city machine make money out of politics through contracts for paving streets, constructing buildings, by getting cheaper franchises for public utilities, rakeoffs from gambling, the sale of liquor, and the protection of

[1] JAMES D. BARNETT, OPERATION OF THE INITIATIVE, REFERENDUM AND RECALL IN OREGON (New York: The Macmillan Company, 1915).

[2] CHARLES E. MERRIAM, THE AMERICAN PARTY SYSTEM (New York: The Macmillan Company, 1922).

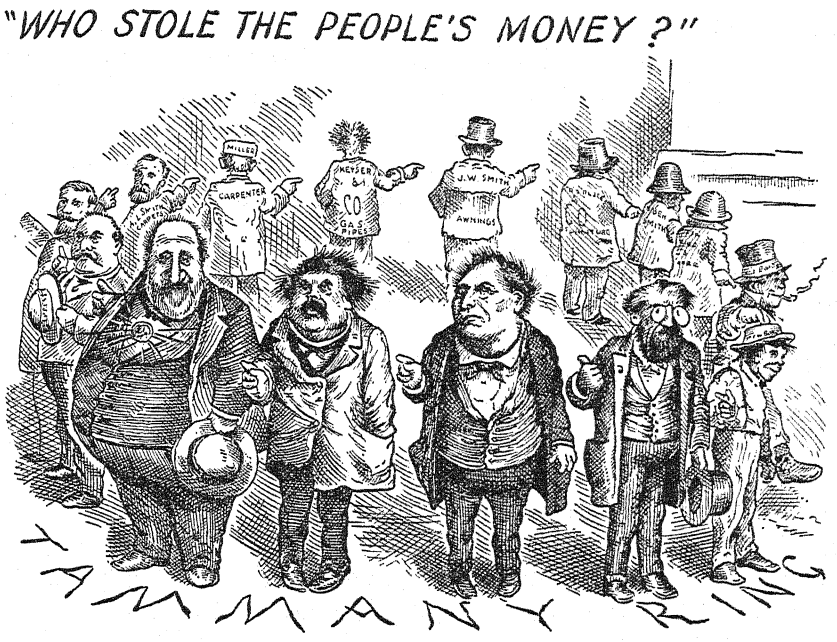


FIGURE 112. THE TWEED RING

Contemporary cartoons show the vigor of the revolt against corruption of local city political machines. Many American cities have had experience with corruption, against which there has been revolt. Perhaps the most famous era of corruption arose under Boss Tweed in New York.

HARPER'S WEEKLY, *August 19, 1871.*

vice and other criminal activities. Such interested persons organize workers in precincts to persuade citizens to vote the machine way and to make sure that such supporters go to the polls, sometimes even to vote more than once.

The vitality of these city machines is remarkable. The reason is the economic base. The organization rests on favors from the government. The famous Tammany Hall of New York City has been in existence since 1789, and has survived such exposures as the Lexow, Mazet, Parkhurst, and Seabury investigations. The difficulty of eliminating such a machine is illustrated by the fact that despite the Tweed scandal in 1879 — one of the worst of all time — it was only a few years before Tammany had regained its power. New York is not the only city that has had a corrupt political system which ran the government for the machine rather than acting as leaders for the people. Similar political organizations have characterized Chicago, Philadelphia, Kansas City, St. Louis, and

most of the other big cities of the United States. When the machine becomes excessively corrupt, a revolt often occurs, and a reform administration comes in for a time.

Political machines may be typified by the one in Chicago.[1] The organization consists of precinct captains, precinct canvassers, and ward bosses. Upon the shoulders of the precinct captains rests the responsibility for visiting and winning over the voters of their districts. In this they are assisted by the canvassers, who are rewarded according to the number of votes they procure. The ward bosses are the real element of strength in the political setup. Even when the party they represent is defeated, the ward bosses continue to be influential in their own wards. Many such bosses in Chicago have held their positions for as long as thirty years. They are able to do this because of the large number of persons who are obligated to them — individuals in the community as well as officeholders. The latter are indebted to the ward bosses for their election or appointment; the former for the distribution of money and favors. The bosses have some control over jobs and are able to find employment for numbers of their followers. In addition to distributing jobs and money, the ward bosses dole out food and coal to the poor, hold picnics, and give beer parties. These activities and others are carried on by political clubs organized in the ward. The ward organizations, in turn, are integrated into a city-wide superstructure.

The local machines, operating for the benefit of the bosses with the interests of the people secondary, cannot do everything they want to. They cannot be altogether irresponsible. For instance, the machine in New York, powerful as it was, could not raise the subway fare above five cents. When the people want something very much, such as the right to drink beer, and when the issue is simple and clear and the people are well oriented on the question, the machine cannot well thwart them. But if the issue is complex, not greatly desired, and somewhat uncertain in its benefits, as for instance, proportional representation in voting, the machine can be decidedly obstructionistic. In practice, the range of the machine's freedom of action and control is limited. The bosses often give the people more of the things they want than do the reform administrations. Boss Tweed in New York built Riverside Drive and parkway, planted trees, beautified the city, and spent much money on improvements. The bosses do not object to building parks, playgrounds, public

[1] HAROLD F. GOSNELL, MACHINE POLITICS: CHICAGO MODEL (Chicago: University of Chicago Press, 1937).

buildings, furnishing musical concerts, and otherwise satisfying the wants of the voters, if they can cut in on the contracts. They tend to defeat the will of the people most effectively in matters of economy.

The party operates in the United States in state elections as well as in municipal ones. There was, for instance, a machine built up by the late Huey Long in Louisiana that was so powerful it was called fascistic. The legislature, which originated democratic programs, was said to vote in that state at the dictation of the political boss.

There is a national political organization, too, though it is not so compact, nor does it operate so boldly for selfish ends. The charge of graft has seldom been leveled at the leaders of the Federal Government. The national party organization has up to the present time been rather loose. It has no such tight organization as has the National Socialist party in Germany, the Fascist in Italy, or the Communist in Russia. All these party organizations have their subchiefs, corresponding to the ward bosses in American cities. Hitler, Stalin, and Mussolini receive frequent reports from their ward bosses, just as did Tweed and Long. In the United States the national political party is rather like a federation of the local machines, but with the Federal Government in the United States now participating in so many activities that touch the citizen, it is likely that the national party organization will soon cease to be so loosely organized.

The political party is not engaged, of course, in trying to defeat the will of the people except in certain cases. In reality the political party is a mechanism for running the government and for facilitating the will of the people. The elected officers of the party are most astute in finding out public opinion and trying to give people what they want. The people are, however, not a single unified group, but are made up of classes, so that the interests of all classes are not met by the party, even though it be sensitive to public opinion.

Lack of interest of voters. It has been shown that though the vote is given to the people in a democracy and elections are determined by their vote, it does not therefore always follow that the power formerly possessed only by kings, the aristocracy, or the rich has been transferred successfully to all the people. Several reasons have been given in preceding paragraphs. Another reason is the lack of interest of the people in voting.

Machine control is made easy by the failure of most citizens to take an active part in political affairs. Most persons eligible to vote usually fail

to do so. A study [1] of all elections from 1932 to 1936 in Flint, Michigan, showed that out of a population of 160,000 there were only 30,000 active voters. An additional 40,000 were registered but not active; and 20,000 more who might have been eligible voters were non-active and non-registered. Only a third of those who were eligible actually participated. Since a simple majority of those voting is usually sufficient to decide issues, about one sixth of the eligible voters can and do outweigh the wishes of the other five sixths. When the issues are important or the candidates prominent, the voters show more interest. The largest turnout occurred in the presidential election of November 8, 1932, when 85 per cent of the registered voters went to the polls; but even on this basis, a little over one third of those eligible to vote could carry an election. The average participation for all sixteen elections from 1932 to 1936 was 43 per cent of the registered voters.

As to why so many citizens do not vote, the reasons given are numerous. A very limited number are prevented by physical difficulties, such as illness or absence from home at the time of voting. A few run up against legal and administrative obstacles, such as insufficient legal residence, congestion at the polls, and the fear that if time is taken for voting it will result in the loss of business or wages. There is also a very general disbelief in the value of voting, a feeling, for instance, that one vote counts for nothing, or that all parties are crooked. Others believe that woman's place is in the home. In the modern world, moreover, there is a great deal of competition for our time; we are absorbed by other interests and are not willing to give up half an hour or so to cast a ballot, especially when we have little preference between candidates who are unfamiliar to us, or when we have no information concerning the complex issues we are asked to decide. These reasons were given by a representative group of non-voters studied by Merriam and Gosnell.[2] The principal reason for non-voting was general indifference, this excuse being advanced by 44.3 per cent of the group. An interesting finding was that there were twice as many female as male non-voters.

The voters do not always understand the questions before them, they

[1] MAX P. HEAVENRICH, "ONE THIRD OF ELIGIBLE VOTERS PARTICIPATE IN ELECTIONS," PUBLIC MANAGEMENT, 20:310–11, October, 1938.

[2] CHARLES E. MERRIAM and HAROLD GOSNELL, NON-VOTING (Chicago: University of Chicago Press, 1924). This is a study of 6000 non-voters representative of the 700,000 who did not vote in the mayoralty election in Chicago, April, 1923. The number of registered voters was 900,000 and the number of eligible voters 1,400,000; it is seen that the number who did not vote was about equal to the number who did.

do not know the characters of the candidates, nor do they take the time to investigate adequately. A candidate with the name Will Rogers was picked to run by his party and far outran his ticket in number of votes. After a candidate with a beautiful voice sang over the radio and won an important election, six singers announced candidacy for political office.

On the other hand, the voters learn to know a candidate for the national presidency very well. Issues that are highly technical, like the reorganization of the administrative branches of the national government, are not well understood by the voters. The following illustration shows that on such an issue many voters simply resort to guessing. In Oregon in 1930, two propositions amending the constitution on the subject of motor vehicles were submitted to the voters. Both had to be adopted for either to be effective, yet 12 per cent more voted for Amendment No. 1 than for Amendment No. 2. The percentage of guessers may, of course, have been larger. Some measures are very well understood, however, as was the case with the proposal to prohibit the sale of liquors.

It thus appears that the people in a democracy do not exercise their power wisely on many issues. But this power is effective in simple and very important matters, and its possession by the people is a potential check on the abuse of government.

Democracy and interest groups. Democracy arose to take the power out of the hands of the aristocratic and rich ruling classes and to put it into the hands of the people, who were learning to read and write and to acquire more money. A review in the preceding paragraphs of how the experiment works indicates that democracy seems to work best in a homogeneous society like a New England town, or in the agricultural West, where nearly everyone is of the same social class. It also works well when the issues of government are simple.

But society is changing. It is becoming more heterogeneous. There are many different races and immigrant groups. No longer are there just farmers and tradespeople; there are skilled laborers and common laborers; tenant farmers and landowners; professional classes; shipping interests; transportation groups; public utility groups; merchants; manufacturers of steel, textiles, chemicals; there are men and women voters; easterners; southerners; westerners; particularly are there social classes. These groups have neither the same education, the same manners or customs, the same attitudes, or the same social backgrounds; hence it is easy to find misunderstanding among them and difficult to find agreement. Furthermore, the government deals with many more questions

than it did formerly, as was suggested in the first paragraphs of this chapter. For these reasons, the smooth operation of democracy is becoming increasingly difficult. The issues are not such as can be settled by a public opinion formed in gatherings of villagers and farmers sitting around the stove in the country store.

It has been shown that, in lieu of any straightforward expression of power by the people, the political party runs the government for the people — but at the price of favors for themselves. The analysis may be extended further. The government is influenced greatly by groups that are most interested in getting the government to do something for them. In the case of the political machine, it is the boss and his henchmen. In the case of the tariff, it is the manufacturers. If the cotton farmers have a low price and a surplus of cotton, then they bring pressure on the government for relief. If health insurance is the question, the doctors will take an interest. Sometimes the interest group is very broad, as in such cases as prohibition or war, and includes not only the liquor interests, the churches, or the munitions workers, but also the whole people. If one interest group goes too far, the other groups unite to prevent excesses.

The question may be asked as to why such pressure groups exist. It may first be noted that the people have representatives and elect executives, because a large population is unwieldy and too busy to function in governing except at such times as elections. The bases of representation in the United States are geography and population; for instance, there are fourteen representatives in Congress from New Jersey and forty-five from New York, and two senators from each state. The justification for representation on a geographical basis was clear in the days when heterogeneity was chiefly regional and when transportation and communication were slow. But today, the heterogeneity is only partly geographical. The Pacific coast has different interests from those of New England, it is true; but heterogeneity in modern times is in large part occupational or economic. Social classes and occupational groups are not localized, and since representation is not based on such interest groups, they must make their influence on National Government felt in other ways, principal among which is lobbying.

The lobbyists who throng the corridors and anterooms of the Capitol are so numerous that they are often called the Third House. Since their operations are described in detail in an earlier chapter [1] it will suffice to say here that they influence governmental officials if they can show that

[1] Chapter X.

they control the voters, for the life of an elected official depends on votes. Some lobbies are much more effective than others; the farmers are very effective lobbyists, as are business groups. The American Federation of Labor has a very strong lobby in Washington. Unorganized labor, the unemployed, and the destitute generally do not send lobbyists to Washington and are under-represented in the Third House.

The effort to place the power taken from the sovereign and the wealthy aristocrats in the hands of the people has meant that, in general, the people who wield this power on most of the details of government are in reality a shifting collection of interest groups. But sometimes a majority of the people become a big interest group on some question, and potentially such a large interest group exists as a check on excesses or as a determiner of important questions. No single interest group controls the government on all questions for long.

WHAT SHALL THE GOVERNMENT DO?

The problem of who owns the government is not the only major question of statecraft today. An equally important one is what the government shall do. The laissez-faireists, whose philosophy thrived with the beginnings of capitalism and the industrial revolution in the eighteenth and nineteenth centuries, held that the government which governed least governed best. The courts, police, army and navy, and a few other functions were considered to be sufficient. Since government had been previously associated with tyrannical monarchs, this attitude was natural. Another important reason, though, was that the rising industrialists wanted to be let alone by government.

Whether government does much or little depends upon circumstances. Governmental functions, like folkways and mores, change. In the early part of the nineteenth century, governments did little; in the early part of the twentieth century, governments did much. The conditions were different.

RECENT TRENDS IN GOVERNMENTAL FUNCTIONS

Governments have been increasing the number of their functions rapidly in the past century and a half. A tabulation [1] of the growth of state functions in Minnesota shows the growth of functions to be very

[1] M. B. LAMBIE, ADMINISTRATION OF THE STATE OF MINNESOTA (Minneapolis, Minnesota: League of Minnesota Municipalities Publication, 1924), p. 6.

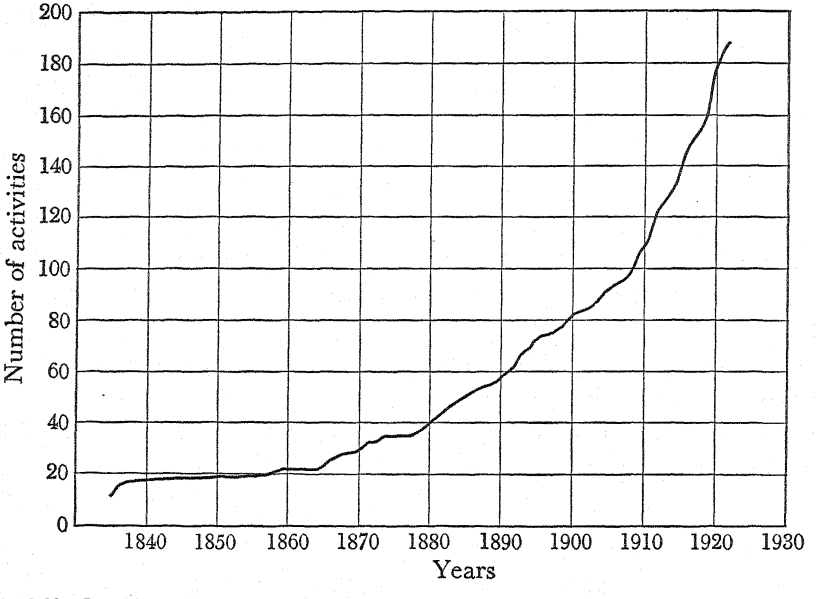


FIGURE 113. GROWTH OF GOVERNMENTAL FUNCTIONS IN DETROIT

Governmental functions are increasing rapidly. The above chart shows the actual numerical growth, which in general agrees with the measures of growth in terms of money spent. This growth of functions probably means an increase in taxation and also that the government has taken over functions formerly exercised by the family and other institutions. Adapted from F. S. CHAPIN, CULTURAL CHANGE *(New York: The Century Company), p. 368. Based on data compiled by* UPSON.

rapid. There were 14 administrative units in 1858, and at subsequent ten-year intervals the numbers were 19, 36, 58, 91, 123, and 155 in 1918. Similar increases are noted in a study of Detroit.[1] These increases are not all additions of totally new functions, though they are new administrative units. These particular compilations have not been carried forward. But another study of the functions of the Federal Government reveals a great increase from 1915 to 1929. The evidence is based in part on the amount of expenditures, which measure in an approximate fashion the extent of functions. In Table 29 is presented the growth of expenditures; the value of the dollar has been kept constant. The table shows a doubling of governmental expenses, which is some indication of the increase in function.

[1] L. D. UPSON, THE GROWTH OF A CITY (Detroit: Detroit Bureau of Governmental Research, 1921). Some of the increases cited are apparent rather than real. The point is discussed by CHAPIN in his CULTURAL CHANGE (New York: Century Company, 1928).

TABLE 29. COMBINED GOVERNMENT EXPENDITURES, 1915–29 [1]
(in millions of 1915 dollars)

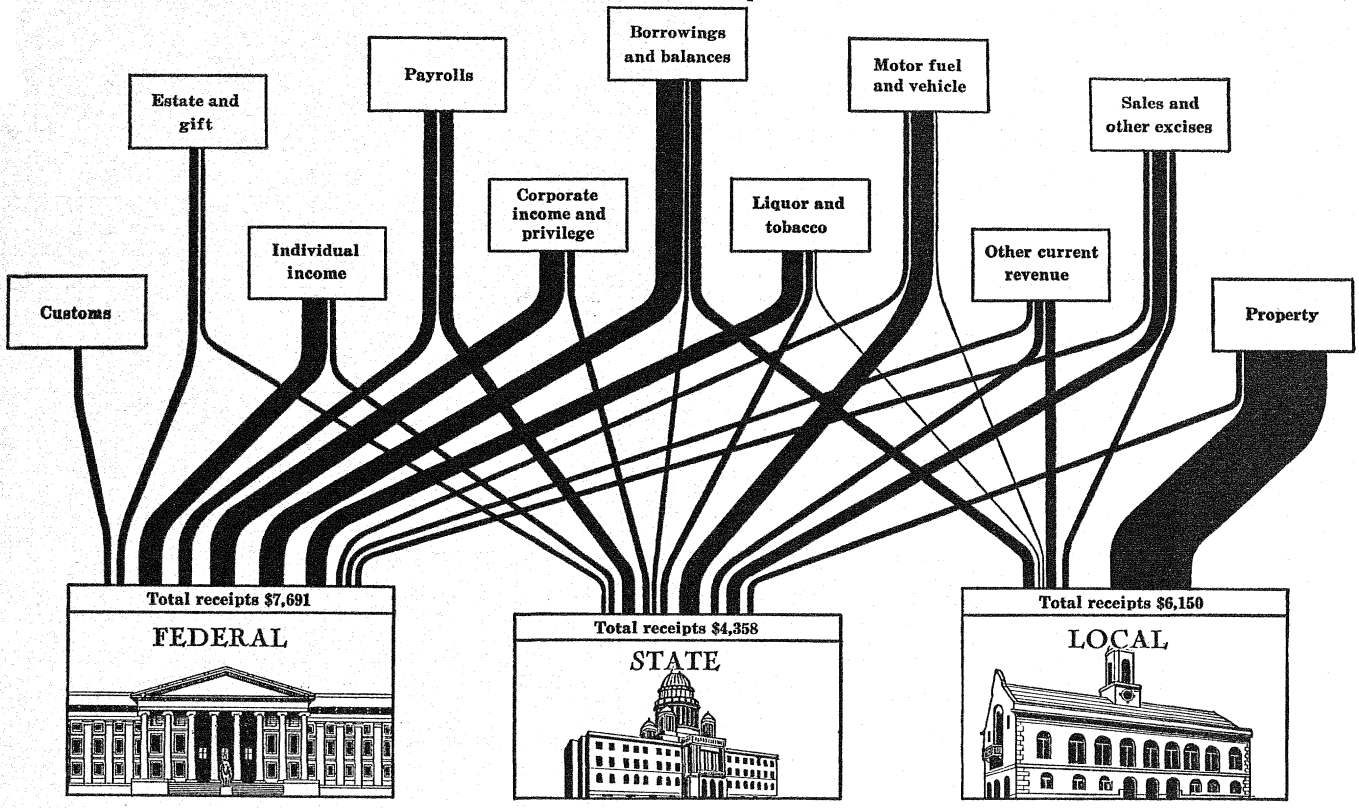
Government	1915	1929	Per cent Increase
Federal	719.2	1,635.1	125
States	489.5	1,149.5	135
Cities over 30,000	1,048.3	1,945.6	85
Other local	1,122.6	2,006.4	80
All	3,379.6	6,736.6	100

It is seen that from 1915 to 1929 the expenditures of states showed the largest proportional increase, the increase in federal outlays was close behind, while the growth in costs of the smaller governmental units was considerably less. For all governmental agencies combined, expenditures in the period doubled. Taking into account the increase in population during these years, we find the per capita cost of government increased 65 per cent.

What are the functions for which this money was spent? Considering first the activities of the Federal Government, it is noteworthy that war is still one of the central functions of the state. By far the largest expenditures of the National Government are made in payment of past wars and preparation for future wars. Including the costs of Army, Navy, and Veterans' services, plus interest and trust fund payments attributable to military purposes, it is estimated that more than 65 per cent of the total national expenditures for 1930 originated in war activities. While the amount of money spent for military purposes in 1930 was twice as great as in 1915, the outlay for civil functions also doubled in this period, so that the proportions remained unchanged, about one third for civil and two thirds for military purposes.

As for the civil functions of the Federal Government, the increase in expenditures for the several departments from 1915–30, computed in terms of 1915 dollars, was as follows: general administration, 80 per cent; foreign relations, 90 per cent; general law enforcement, 450 per cent; administration and development of natural resources, 100 per cent; promotion and regulation of commerce, transportation, and communication, 195 per cent; promotion of health and welfare, 35 per cent; promotion of education, science, and research, 150 per cent; public improvements, 60 per cent; and territorial and local government, 90 per cent. It will be noted that three groups of functions increased more rapidly than the

[1] CARROLL H. WOODY, "THE GROWTH OF GOVERNMENTAL FUNCTIONS," RECENT SOCIAL TRENDS IN THE UNITED STATES (New York: McGraw-Hill Book Company, 1933), vol. II, p. 1324.


Sources of receipts
Borrowings and balances
Payrolls
Motor fuel and vehicle
Estate and gift
Sales and other excises
Corporate income and privilege
Liquor and tobacco
Individual income
Other current revenue
Customs
Property
Total receipts $7,691
FEDERAL
Total receipts $4,358
STATE
Total receipts $6,150
LOCAL

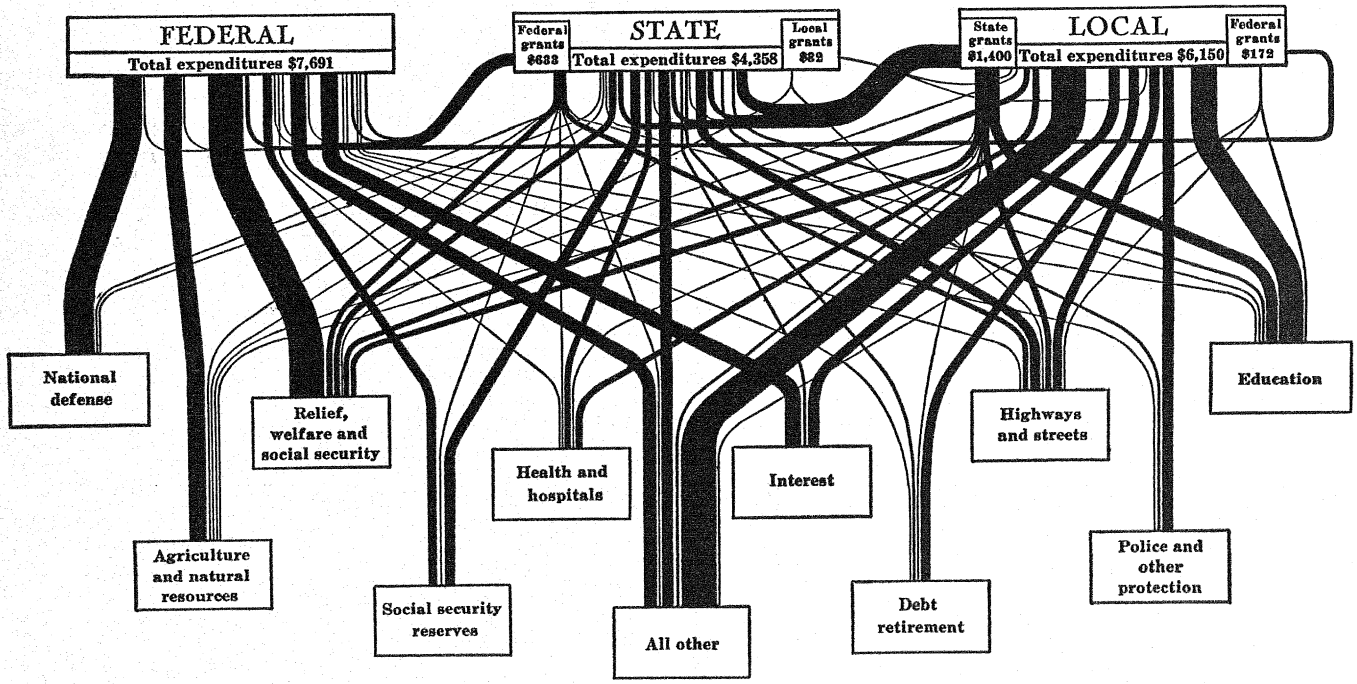


FIGURE 114. HOW OUR TAX MONEY IS SPENT

The above chart suggests the extent and complexity of modern government. Courtesy of Treasury Department, Washington, D.C.

group as a whole: law enforcement;[1] commerce, transportation, and communication; and education and research.

The growth of civil functions comes from three sources: (1) existing agencies expanding old services, such as the civil service, the federal and penal institutions, and the customs service; (2) existing agencies adding new activities, as in the case of the National Park Service, Forest Service, and the Public Health Service; and (3) the creation of new agencies, such as the Tariff Commission, 1910; Power Commission, 1920; Board of Tax Appeal, 1924; Federal Oil Conservation Board, 1924; Board of Mediation, 1926; Federal Radio Commission, 1927; and the Federal Farm Board, 1929. The functions which have grown the most rapidly, particularly commerce, transportation, and communication, show the largest number of new agencies.

These data also show that governmental functions increased under the leadership of the "rugged individualism" of the Republicans, who are, however, the lineal descendants of Alexander Hamilton, who favored a strong National Government. Functions of the Federal Government have increased even more, though, under the leadership of the party of Thomas Jefferson, who opposed Hamilton. So the functions grow under both parties.

The growth of functions has been particularly extensive during the depression years of the nineteen-thirties, when the Democrats were in power. There had been around 65 such agencies created up to 1937,[2] of which the following are illustrations:

Works Progress Administration
Public Works Administration
Securities Exchange Commission
Social Security Board
Federal Deposit Insurance Corporation
National Resources Planning Board
Civil Aeronautics Authority
National Labor Relations Board
Civilian Conservation Corps
Federal Relief Administration
Tennessee Valley Authority
Home Owners Loan Corporation
Rural Electrification Administration
Central Statistical Board

[1] The high costs of enforcing the Eighteenth Amendment are reflected here.

[2] LEWIS MERRIAM and LAURENCE F. SCHMECKEBIER, REORGANIZATION OF THE NATIONAL GOVERNMENT (Washington: The Brookings Institution, 1939), pp. 243–45.

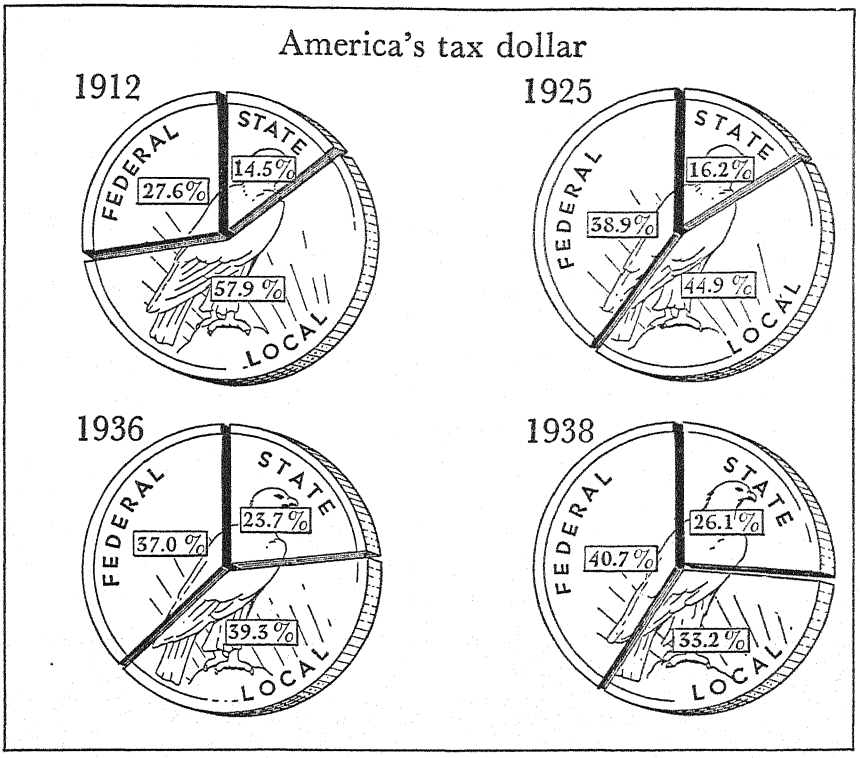


FIGURE 115. THE GREAT GROWTH OF GOVERNMENT IN WASHINGTON

The Federal Government has been growing faster than the local governments, as measured by the allocation of tax collections. This modern phenomenon is world-wide. One reason is the growth of the transportation and communication inventions. Another is the broader area as a tax base. Data taken from ALBERT LEPAWSKY, "AMERICA'S TAX DOLLAR: A KEY PROBLEM IN GOVERNMENTAL RECONSTRUCTION," THE ANNALS, *204:186, November, 1939.*

This phenomenon of the increase of the functions of the state is world-wide and characterizes Japan, Mexico, Great Britain, France, Italy, Russia, Sweden, and other countries.

Centralization of functions. The data on the growth of the expenditures of the Federal Government presented in the preceding section show that the expenses of the federal and state governments have been growing at a faster rate than the expenses of city and local governments. This is partly due to the transfer of functions from local governments to central governments or to the assumption by the National Government of functions that were formerly considered to be in the province of state and local governments. For instance, relief to the unemployed was once

only a local function, but now the government at Washington has assumed much of the responsibility. The regulation of wages and hours of labor, the care of the old, the education of youth in CCC camps, the creation of national police are additional illustrations.

This phenomenon of centralization of governmental powers is also world-wide and seems to have been made possible by the transportation and communication inventions, which increase the size of the territorial base of government. In many cases the local governments are unable because of inadequate revenue to meet the present requirements of the populace. Many counties cannot afford adequate hospitals, libraries, or schools. By widening the area, a broader financial base is possible. In cases where this is not done, the richer central government extends financial grants-in-aid to the less favored local areas. Grants-in-aid have been given for maternal health, for old-age assistance, and for general education.

An interesting example is afforded by the function of education, traditionally a function of local and state governments. The increase of federal participation in the educational program of the nation is indicated by the figures in Table 30, which shows normal federal subventions to states for education in recent years:

TABLE 30. FEDERAL AID TO STATES FOR EDUCATION

1910 *.....	$ 5,173,000
1920 *.....	15,997,000
1930 †.....	24,799,000
1937–38 ‡.....	52,122,000

* MABLE NEWCOMER, FINANCIAL STATISTICS OF PUBLIC EDUCATION IN THE UNITED STATES, 1910–20, Educational Finance Inquiry Commission (New York: The Macmillan Company, 1924), vol. VI, p. 88.
† PAUL R. MORT *et al.*, STATE SUPPORT FOR PUBLIC EDUCATION, National Survey of School Finance Publication (Washington: American Council of Education, 1933), p. 325.
‡ FEDERAL FUNDS FOR EDUCATION, 1937–38, Leaflet no. 54, Office of Education (Washington: Government Printing Office, 1939), p. 23.

These data show a tenfold increase in normal federal outlays for education in little over a quarter of a century. The figures exclude funds provided for services rendered directly by the Federal Government, such as schools for Indians; they also exclude emergency grants, which in recent years have been very heavy.

During the year 1933–34, for the first time in the history of public education in the United States, the Federal Government advanced money directly to individual schools and provided wages to individuals for engaging in educational work. For example, the Federal Emergency Administration of Public Works made loans and grants for school buildings and improvement projects, and the Federal Emergency Relief Admin-

istration furnished money with which to employ needy college students. Apart from grants for construction purposes, the Federal Government in 1937–38 appropriated approximately $220,000,000 for purposes of education; of this amount only 23 per cent was for regular purposes.

Functions of the separate states. The great expansion of the functions performed by the Federal Government seems to have caused increases in the services performed by the various commonwealths, for many of the federal developments have entailed a co-operative relationship with the states. For example, federal grants for education are made to the states on condition that the states make stipulated appropriations of their own; the same is true for highway and other aid. Such controls set up by the Federal Government have the effect of stimulating increased activity on the part of the states. The availability of federal aid in highway construction led to the creation of state highway departments in states which had no such departments before. The states have also increased their functions both by expanding established activities like the conservation of natural resources and by assuming increasingly the functions of local governments, especially those of small places. For instance, prior to the eighteen-nineties local agencies were in complete charge of the building of roads, which were poor indeed. The coming of the automobile helped to pull the nation out of the mud. Control over highways was shifted to the states, and a tremendous program of road-building was inaugurated. State expenditures for highways and waterways increased 475 per cent between 1915 and 1929; and the mileage of hard-surfaced roads increased 776 per cent. Prior to 1923 the most prominent function of the states had been education. While now surpassed by highways, education occupies a secure second place and accounted for one fourth of the expansion of state expenditures from 1915 to 1929. In this period there was an increase of 282 per cent in the number of students in public universities, colleges and professional schools.

Functions of local governments. Except for the larger cities, local governments have not experienced any such significant expansion of functions as have the state and federal governments. Small city governments perform no functions of such scope as the Federal Government has in its veterans' services and in the promotion of commerce and industry. Nor does the maintenance of city streets compare with the function of state highways. Cities have, however, in recent years taken on a number of new functions, such as the development of zoning plans, new traffic controls, public airports, playgrounds, and community centers. For the

most part, however, the growth of city functions has been due to the expansion of older activities such as education, which has accounted for nearly one half the growth of city governments. The fact that cities have not had a great expansion of functions in recent years does not mean that the cities have few functions. In reality, the city has a very large number of functions, such as policing, protecting from fire, safeguarding weights and measures, collecting garbage, and preventing contagion. These functions, however, were developed many years ago.

As for other local governments, such as counties, they too have taken on new functions since 1915 in such fields as health, recreation, and vocational and agricultural education. The increases here have been smaller than those of other governmental units because of the shifts of functions to the states. In an era of expanding social organization such as the present, the small places are often unable to perform adequately many of the functions they exercise. This fact is evidenced by the growth of special districts, union schools, and the like. In some places, as in North Carolina and Virginia, financial and other difficulties of local units have resulted in the support and control of highways being shifted entirely to the state. For that matter, even the states are not the most efficient units for performing certain functions, such as the conservation of natural resources, the promotion of commerce and industry, and the development of transportation and communication facilities. Such functions, at present performed by states, might perhaps be better carried out by regions, but constitutional obstacles stand in the way of regional organization.[1]

GOVERNMENTAL EFFICIENCY

One of the major doubts in regard to the extension of the functions of government concerns the efficiency of governmental work. There is abundant evidence of corruption, graft, and waste, particularly in American city governments. Lincoln Steffens[2] states, in a study of St. Louis:

> Early in 1898 a "promoter" rented a bridal suite in the Planters' Hotel and having stocked the rooms with wines, liquors and cigars until they resembled a candidate's headquarters during a convention, sought introductions to members of the Assembly. . . . Evidence now in the possession of the St. Louis courts tells in detail the disposition of $250,000 bribe

[1] Cf. Chapter XIV, "Human Ecology."

[2] LINCOLN STEFFENS, THE SHAME OF THE CITIES (New York: McClure, Phillips and Company, 1904), pp. 51–52.

> money. Sworn statements prove that $75,000 was spent in the House of Delegates. The remainder of the $250,000 was distributed in the Council. . . . Finally one vote was needed to complete the necessary two thirds in the upper Chamber. To secure this a councilman of reputed integrity was paid $50,000 in consideration that he vote aye when the ordinance should come up for final passage. . . . The promoter had expended nearly $300,000 in securing the legislation, but within a week he sold his rights of way to the "Eastern Capitalists" for $1,250,000.

As to inefficiency, it is claimed that governmental employees do not work as energetically as do those in private industry. On the other hand, the construction of dams under the Tennessee Valley Authority seems to have been done with exceeding efficiency. Without attempting to assess the merits of the controversy, it is admitted that governments in the United States have been at times wasteful, inefficient and even corrupt. That better administrative traditions can be built, however, may be inferred from the relatively high standards in England and in Germany. Furthermore, improvements in administration are occurring so rapidly in the United States with the extension of the Civil Service and the merit system that Charles Merriam, close student of government and politics, sees a day ahead when corruption will be banished from government.[1] It will naturally take some time to build up a tradition of efficiency with an able personnel. One of the reasons for corruption and inefficiency is that governmental activities have not been watched carefully, except by the bosses and the political machines. It is possible that the extension of the functions of government will increase efficiency. The theory is that if the government spends larger sums on more important concerns of the people, the administration will for this reason be watched more closely and at the same time attract a higher type of personnel. If the government in the United States should run the railroads, take over the coal mines, or build a merchant marine, matters which are of much concern to business, there would be considerable pressure for good service, as there is in the postal service. As the government does more important things, the service may be raised in efficiency and not be allowed to sink into corruption.

Governmental enterprises sometimes have a more efficient organization than private industry, even though a governmental employee may not be as efficient as a worker in private industry. For instance, in the delivery of milk three or four private companies make wagon deliveries

[1] PROLOGUE TO POLITICS (Chicago: University of Chicago Press, 1939).

in the same city block. If milk were delivered by the government with only one wagon to the street, duplication would be eliminated and a more efficient organization would result, even though the driver might not deliver milk as rapidly. Governmental organization effects economies, then, in the elimination of the wasteful competition of private industry.

GOVERNMENT AND SOCIAL CHANGE

It has been shown that the task of democracy in a complex world with a government of vast functions is not an easy one. Added to these difficulties is the fact of social change. Change means new problems. Forty years ago the problems were bimetallism and railroad rate regulation. Thirty years ago they were workman's compensation and factory inspection. Twenty years ago they were immigration and the League of Nations. Ten years ago they were business failures and unemployment. Such problems coming rapidly call for quick action. Democracy is fitted for deliberative action, and works well when there is time to educate the people on the issues confronting them.

It is acknowledged that the democratic processes, involving the slow procedures of deliberation, debate, and consent, tend to be put aside in a crisis, such as a war or an acute depression of business, and the executive either gets or takes the authority to act quickly. In American history probably the most extreme instance of concentrated executive authority was that exercised by Abraham Lincoln during the Civil War.[1] Lincoln is generally regarded as a great democrat, as the exponent of "government of the people, by the people, and for the people." His sympathies were doubtless deeply democratic, yet he was forced by circumstances to exercise authority perhaps more arbitrary than that used by any other president. By comparison with Lincoln, Woodrow Wilson was a moderate dictator during the World War, for President Wilson consulted Congress more often. Lincoln was more hard pressed by war than Wilson. Lincoln asked for few of the powers he exercised. Without the authority of formal law he placed thousands of suspected men in prison without any charges being preferred against them; proclaimed martial law; suspended the writ of habeas corpus; suppressed important newspapers indefinitely; and placed armed guards at election polls. He enlarged the army and navy beyond the limits permitted by existing law; spent public money without congressional appropriation; and issued the

[1] J. G. RANDALL, CONSTITUTIONAL PROBLEMS UNDER LINCOLN (New York: D. Appleton and Company, 1926).

Emancipation Proclamation simply by executive order, as commander-in-chief of the army. Despite this exercise of dictatorial power, Lincoln of course established no thoroughgoing dictatorship. He had to face an election in 1864 in which he might have been defeated.

War, of course, is a special situation where very quick action is demanded. Only slightly less so is an acute business depression. But in a rapidly changing society many social problems come quickly, and are almost in the nature of crises. Something must be done quickly about the surplus cotton crops, the dust bowl, the housing situation, the tenant farmer. Since democracy was founded in an age of less rapid pace, when the social problems were fewer and less varied, its machinery tends to be a little slow in the newer tempo. Its machinery is not geared up to the pace of rapid change. Dictators can move more quickly than legislative assemblies.

The totalitarian states. It has been shown that democracies have undergone many changes since the French Revolution and the founding of the United States. In a world of change, democracy is still changing. But in recent years there has arisen a new type of government, sometimes called the totalitarian state. The totalitarian state in Russia has industrialized the country in remarkably quick time with its five-year plans. In Germany the totalitarian state built a war machine almost overnight and won notable victories in the diplomatic field. In Italy it made a country without coal or iron a temporarily powerful nation. These achievements force the consideration of this type of government; indeed, the totalitarian state is a challenge to democracy.

The totalitarian state, as its title implies, is a state in which the government is supreme in every field. It is a government with many functions in many fields, and it is authoritative in all. In so far as it engages in production it resembles state socialism. In practice there are other features not implied in the title which may or may not be essential to the type. These are: (1) the nullification of the legislature; (2) the possession of dictatorial powers by the ruler; (3) one party system; (4) little voting by the electorate; and (5) considerable restriction of freedom.[1]

[1] The terms used in regard to political activities are often exaggerated. Democracies, as has been shown, do not always have in practice a rule by the people for the people. Nor does a dictator have unlimited power. He is subject to public opinion, and is often a mediator between the extremes of the ruling group of his party. Nor is a ruler in a democracy at war a complete dictator, though he has more power delegated to him than in peacetime. The totalitarian state does not, of course, exercise total powers, nor have all the functions of all the other social institutions been transferred to the state. The propaganda regarding democracies and totalitarian states serves to exaggerate the differences. If friction exists between the two kinds of

It may be noted that these characteristics are found in the democratic states in wartime. The president or prime minister is given dictatorial powers; parliament is much less powerful; party issues are subdued. War is no time for elections. The state takes on many new functions in carrying out a war. Totalitarian Germany, since the fall of its democracy in 1933, furiously prepared for war, and hence has become a modern Sparta. Italy has also for a decade been girding for war. Russia had to fight many armies after the revolution in 1917 and since invasions of her territory ceased she has prepared for other possible wars. Totalitarian states are found in states preparing for war, for Italy, Russia and Germany fought wars in the late 1930's and 1940's. France and Great Britain became totalitarian states in practice during these wars. The totalitarian states are clearly wartime states. But are they anything else? If and when the wars and rumors of wars cease, will the totalitarian state be modified in the direction of democracy?

In seeking an answer, it may be remembered that the absolute monarchies of earlier times had many of the characteristics of the totalitarian state. The strong monarchies had powerful rulers, legislatures did not exist or were weak, elections were non-existent or were opposed, and freedom was often restricted. In fact, Russia, Germany, and Italy had only a short experience with democracy before becoming totalitarian states. The development of totalitarian trends in these states is in many respects like a reversion to earlier types of government which have had a long existence. The totalitarian state may then have a longer duration than the period of a war or war preparation.

However, prior to the nineteen-twenties, the trend all over the world was toward democracy. The reason was probably the dissatisfaction with the tyrannical monarchies, the increased education and income of the poorest classes, and the spread of the capitalistic economy. Democratic government was a new invention that had worked well and was being diffused from one country to another. Does the rise of the totalitarian states reverse the trend, or are they a temporary deviation only? Preparation for war in countries which had less than a century's experience with democracy is certainly a situation that could make for a temporary deviation from the trend, just as a big war in a democratic country makes for a deviation away from democracy. It may be that

government, the democracies like to emphasize the freedom in a democracy and a lack of it in a totalitarian state which they call dictatorship. The totalitarian states like to emphasize the difference in *esprit de corps*. They call the democracies weak and incompetent.

special situations following the first World War favored the dictatorships, and that a return to a less warlike state will see the totalitarian states swing back toward democracy.

On the other hand, there is a strong inertia about governmental habits. Once totalitarian habits are set up, they are difficult to change.

There is also the possibility that some of the totalitarian governmental devices may continue because they are effective. For instance, the totalitarian states have social inventions which regulate industry, control imports and exports, and permit speedy action by the state. Such devices limit freedom of discussion, no doubt, but they also permit quick decisions. Some of these devices may prove effective in solving pressing peacetime problems as well as those of wartime. There may even be a tendency for democracies to use such totalitarian devices themselves. Social insurance was invented in monarchical Germany, for instance, in the eighteen-eighties, but has been adopted by other states.

War is a most favorable condition for extensive and fast collective action. It is not surprising therefore that war should be a condition favorable to the invention of new types and forms of social organization. The state itself was largely an invention of wartime, as has been shown. At the end of the first World War in 1918, the United States and the other combatants dismantled almost completely their wartime organization in a return to normalcy. It is conceivable, though, that some of the wartime inventions, such as the control of exchange, might effectively have been retained longer. It is possible, therefore, that some part of the totalitarian structure may persist even in peacetime.

Freedom versus organization. The problem of democracy versus totalitarianism may be generalized into the question of freedom versus organization. This was an issue in the days of the Greek tyrants. It was a problem in the days when the Magna Charta was wrested from King John of England. It is a problem today. Neither society nor government can be run without organization, but organization means restriction of freedom. The army has to be organized effectively for fast action and the soldier who has had his liberty curtailed must obey without discussion. The social problems of today can be solved only by organization which restricts freedom.[1] Not the least of these problems which society must solve are economic, having to do with industry. One of the

[1] "... the problem is whether or not the powers which government may require to prevent or deal with economic crises can be restricted to those consistent with parliamentary government." CALVIN B. HOOVER, DICTATORS AND DEMOCRACIES (New York: The Macmillan Company, 1937), p. 18.

really great questions of today is what shall be the relation of government to industry. These and other problems can presumably be solved by discussion and the consent of the governed, if there is adequate time. In war, we have seen, there is not sufficient time for consent based upon full discussion and persuasion. In peacetime there is more time for discussion before action, but numerous urgent problems call for solution. Pressure groups demand action. It is dangerous to delay long in solving problems. Hence the solution calls for effective organization, the maximum liberty possible, and the capacity to act quickly.

SUMMARY

Although the act of governing others is a natural phenomenon, government as a social institution is not. Governing is involved in the domination of the inferior by the superior, and the weak by the strong, and occurs throughout the animal world. Government, however, refers to an organization which maintains order for the whole group. Such an organization is lacking not only among animals but also among peoples with the simplest material culture.

There is small need for a special institution of social control among primitive hunters, since there is little disorder among them. The routine of everyday living, elaborated and sustained by the folkways, makes for social regularity and stability. So, too, does the leadership supplied by the older men. Again, the groups are very small, which means that public opinion can operate effectively as a regulatory force. Disorders which do occur are handled by organizations such as the family, the clan, and the various associations, the primary functions of which are not governmental.

The idea of government as a special, separate institution gains in favor as the conception of the group as a whole develops. Even when families are organized along kinship lines into clans, there is also a sense of locality, so that those settlements which are contiguous have a "consciousness of kind" which sets them apart from "outsiders." Local bands thus become affiliated in sentiment, forming tribes. The tribe may be regarded as the forerunner of the state.

There is not a uniform development of government for all cultures. Hence it is not possible to trace the evolution of the state, except for a particular people. What may be shown, however, are the principal factors which are correlated with the development of government, such as the presence of dominant personalities; war; surplus wealth to make war worth-while; conquest; tribute; classes; and slavery.

In modern times the scope of the state has expanded enormously. Governmental functions have been steadily increasing, with a trend toward centralization of power in the larger governmental units. The modern era has been marked also by the decline of absolute monarchies and the gradual diffusion of sovereignty among the masses. Meantime society has become more heterogeneous and complex and subject to

rapid cultural changes. Democracy, suited to slow, deliberate, direct action, is sorely beset by these changes. Although the power of the people in a democracy is always available as a check against abuses by elected officials, still the situation is such that the interests of the people are often subordinated to those of party cliques and special pressure groups. In serious crises, the democratic processes are suspended, and sometimes even superseded, by processes similar to those of the totalitarian state. The latter, with its subordination of personal liberty to thorough social organization and prompt social action for national ends, now constitutes a threat to the democracies.

QUESTIONS FOR DISCUSSION

1. Is it possible for a group of people to live together without formal governmental organization? Explain.
2. Why is there little need for government in the simpler societies?
3. What organizations maintain order, deal with crime, and enforce discipline among the lower hunting cultures?
4. Can we think of the state as a social invention? If so, how did it originate? What factors are favorable to the development of the state?
5. Why is sovereignty, or ultimate control over the behavior of its citizens, essential to the existence of the state?
6. Is there a linear evolution of the state, with a series of stages common to all peoples? Elaborate.
7. What is the relationship between a high development of the property system and a feudal type of government?
8. How is the prevailing form of political leadership (hereditary or elective) tied in with the rest of the culture?
9. What factors made the cities birthplaces of democracy?
10. How is democracy in theory different from democracy in practice?
11. What features of our modern culture underlie the existence of the political machine? Could we get along without the political machine?
12. Discuss: "That government is best that governs least."

13. What is the relation of rapid social changes, such as are now occurring, to the need for formal governmental controls?
14. What effect does a serious crisis like war or economic depression have on government organization?
15. Does the state exist for the individual or the individual for the state?
16. What social values are emphasized in a democracy? In a totalitarian state? Are they reconcilable?

TOPICS FOR REPORTS

1. The traits of political leaders in American cities.
2. Means of social control in a particular preliterate society.
3. The feud as an illustration of the protective function of the family.
4. The clan as an agency of social control among preliterates.
5. CHARLES BEARD'S AN ECONOMIC INTERPRETATION OF THE CONSTITUTION.
6. Recent inventions in the field of government.
7. Civil Service and the merit system in England.
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XXI. RELIGIOUS INSTITUTIONS

IT IS not difficult to imagine how laden the life of early man must have been with hazards, irregularities, and perplexities. Even now with all our understanding and scientific achievement, life runs an uncertain course. There are no hostile animals to fear, but epidemics still sweep across the land, taking a heavy toll of life. Accidents abound, leading to mutilation and suffering. One season the rivers run dry, and the next they overflow with flood waters. Moreover, much that is not hazardous is confusing; and if this is true for us, how much more so for early man. There is the mystery of birth. Some women bear no children, while others have twins. Dreams are strange. So, too, are rainbows and eclipses of the sun. And there is the final mystery of death.

Why do such things happen? What can be done about them? Such questions as these seem to occur quite naturally to man. When confronted by what is puzzling he seeks an answer. When beset by difficulties he tries to escape them and, failing this, tries somehow to find an explanation that will leave him with a sense of security in life. Animals have essentially the same experiences, but they ask no questions and devise no explanations. Man alone seems to have sufficient curiosity, intelligence, and imagination to ask why.

THE BEGINNINGS OF RELIGIOUS ORGANIZATION

THE WORLD OF IDEAS OF PRIMITIVE MAN

The answers that men give to the fundamental problems of life depend on how much they know about these things. At the present time we are not disturbed by the birth of twins, because science has made clear the biological reasons for multiple births. But primitive man does not have this knowledge. To him twins represent a violation of the law of nature; and hence they are thought to have special significance. In many cases they are deemed a bad omen, so are put to death. In others they are regarded as a very favorable sign, a sort of special gift from the gods, hence are treated with circumspection and given special care.[1]

[1] We are told that, among the Baganda, "... the birth of twins was regarded as a most important event, for they were regarded as due to the direct intervention of the god Mukasa, and this

In a word, when man lacks the real explanation of any phenomenon, he invents one. This tendency is sometimes called "man's quest for certainty."

Since early man could scarcely have adequate knowledge about many of the puzzling problems of life, he drew on his imagination for answers. Out of his imagination he evolved the idea that the phenomena he could not explain naturally must be due to supernatural forces. The belief in supernatural forces is at the heart of religion.[1]

Fact and fantasy. The world of ideas of primitive man has been much discussed; it often appears very strange to the modern man. But it is possible to isolate at least two poles around which different types of ideas cluster. One is the pole of fact, where is found such knowledge as that stone is hard, or that friction of dry wood will produce fire. This type of knowledge is not unlike the scientific knowledge of today, in that it can be used for prediction; it is based upon the fairly simple testimony of the senses. It is largely descriptive and does not reach very far into the realm of causes. There was thus a great mass of very reliable knowledge possessed by primitive man about material objects, the behavior of man, animals, and climate, which could be more or less organized and transmitted from generation to generation. This kind of knowledge is most useful in the living of daily life. It enables one to collect and prepare food, to build snares, to leach the acid out of acorns, to poison a dart, to make a boomerang, to regulate marriage, to organize a hunting party, to avoid and settle disputes with other individuals. At the one pole, then, is this knowledge of fact.

Quite the opposite of this type of knowledge and at the other pole of primitive man's ideas, are his fantasies. The most extreme form of fantasy is the hallucination. A thirsty traveler crossing the desert sees in his imagination a pool of cool water under a palm tree, water that will quench his burning thirst.[2] Such visions are a characteristic of American Indian experience. Young Indians fast for days in isolation in an attempt to go into a trance and have a vision. Sometimes similar visions

necessitated great care and numbers of tabus, in order to retain the favor of the god. Any mistake on the part of the parents, or any sickness which befell the twins, was looked upon as the result of the god's anger, which might extend to the whole clan." J. ROSCOE, THE BAGANDA (London: The Macmillan Company, 1911), pp. 64–65.

[1] The supernatural may be defined as something transcending the expected or natural; an extraordinary, mysterious force capable of controlling or changing the course of nature. Cf. ROBERT H. LOWIE, PRIMITIVE RELIGION. Introduction, p. xvi.

[2] See, for instance, the accounts of hallucinations in a desert recorded in ANTOINE DE S. EXUPERY, WIND, SAND AND STARS (New York: Reynal and Hitchcock, 1939).

are had by several individuals; these are reported and may become a part of the system of beliefs. Wishes are a common element of fantasies and if a form has been created, it may be perpetuated, as is Santa Claus, by the wishful daydreams of adults and children. The emotions back of imagination are by no means confined to such simple wishes. Some wishes are more complex, like those of self-sacrifice or self-persecution. Probably some such feelings are responsible for the belief in evil spirits such as the devil and perhaps play a part in inventing him.

It must not be thought that imaginary beings are easily invented. Children are said to talk to and play with wholly imaginary playmates, but it is certainly not known that each child invents his imaginary playmate, though some may do so. Such imaginary characters, like children's games, may be transmitted from one succession of children to another. The invention of the idea of a ghost is probably as difficult as that of a mechanical invention, and there is no reason to think that the invention of mythical characters is any easier or more common.

In many primitive cultures there are beliefs about creation. For instance, among the Maori, creation was thought to be the work of their supreme being Io, who began creation in the manner described in the following poem.[1]

> Io dwelt within the breathing-space of immensity.
> The universe was in darkness, the water everywhere.
> There was no glimmer of dawn, no clearness, no light.
> And he began by saying these words,
> That he might cease remaining inactive.
> "Darkness, become a light-possessing darkness."
> "Light, become a darkness-possessing light."

The fantasies about the origin of light and of creation among this Polynesian people may be partly related to man's concern with power and his desires to hook up to or to be identified with such omnipotence. Curiosity, one assumes, also played a rôle in the explanation of origins. But certainly the Maori's ideas about the nature of light and the creation of the whole world do not have the same accuracy as do their ideas about the properties of the tools they have and how they are made. Accurate knowledge in this field of the origin of the earth and of light is difficult to get. Our own knowledge in this field is not yet all it should be.

Primitive social philosophy and belief. In primitive man's culture,

[1] PAUL RADIN, PRIMITIVE RELIGION, p. 265.

scientific knowledge in most fields is far less advanced than in our own, hence in his culture there is room for the existence of many ideas that have not the reliability of factual knowledge. These ideas are his beliefs, his theories, his notions of causes, his interpretations of behavior and phenomena, his ideas about successful living. His beliefs concern not only the explanation of inanimate phenomena; they become woven into a philosophy of behavior in life. This relation of belief to philosophy of life is shown by the advice of a Winnebago Indian.[1]

> My son, when you grow up, see that you are of some benefit to your fellow men. There is only one way you can aid them and that is by fasting. Our grand-father, the Fire, he who in all times stands in the centre of our dwelling, sends forth many kinds of blessings. Be sure that you make an attempt to obtain his.
>
> Remember to have our grand-father, the war chiefs, the spirits who control war, bless you. See that they have compassion on you. Then some day as you travel along the road of life, you will know what to do and encounter no obstacles. Without effort you will be able to gain the prize you desire. The honor will be yours to glory in. If reverently you fast and thirst yourself to death then these war blessings will be bestowed upon you. Yet not without constant effort are these blessings procurable. If you do not possess one of these spirits, from which to obtain this strength and power, you will be of no consequence socially and those around you will show you little respect.
>
> Some day in life you will find yourself travelling along a road filled with obstacles and then you will wish you had fasted.
>
> Try to be a leader of men. Yet not with the blessings of one, not with the blessings of twenty, can you go on the war path. For that the blessings of all spirits are necessary. . . .

In these very interesting teachings from the older generation to the younger, it is fairly reliable advice that to overcome obstacles and to win prizes will bring honor and prestige. Such knowledge is as accurate as the knowledge that if you hit a bird with an arrow you will have meat to eat. But the belief that fasting will help you to get what you want without effort is not very reliable knowledge. It is, instead, a fantasy. Many ideas about the good life, about progress, about desirable methods of obtaining goals are, so far as their reliability is concerned, somewhat like the Winnebago faith in the blessings of the war chiefs. Here we see again how the ideas of primitive man, like those of contemporary man,

[1] PAUL RADIN, *op. cit.*, p. 16.

may be organized around the two poles of factual observation and fantasies of the day-dreaming type.

Although belief in supernatural or ultimate power is conspicuous in religion, man works this belief into a system. That is, he elaborates his religious spirit into a religious organization. It is with the organization rather than the spirit of religion that the sociologist is chiefly concerned. The following discussion is devoted to the elaboration of the institution of religion in human society.

RELIGIOUS ORGANIZATION: A COMPLEX OF FUNCTIONS

While religion as a belief in higher powers is a complex of elements, religious organization is an even more intricate complex. For when the habits and practices of religious people get organized into an institution, the institution by virtue of its existence may take on other functions of a social nature and tie these in with the religious beliefs. A belief in a deity may lead to the belief in the provision of life after death, which may be pleasant if the conduct of the individual during life is moral. Thus organized religion may assume an ethical function.

Again, the belief in the efficacy of prayer may mean the use of prayer for rain or for success in economic ventures, and religion in this way may be related to the economic life. Paintings of religious scenes and characters have been hung in churches and the funds of churches have been used to encourage religious art. Religion may come to have associated in its complex an art function. Going to church on Sunday is an occasion for seeing and meeting friends; the church becomes, in a measure, a social organization.

While, therefore, it is possible to define religion as an emotional reaction to the mysterious or to a belief in a higher power, it is well to supplement such a definition with the idea that organized religion may be a complex of functions relating to many aspects of social life.

The historical origin of religious organization. When did religion first appear among men? Has it, like the family, been in existence as long as man himself? This question cannot be answered directly from the data, for religion does not leave tracks as permanent as those of the material culture. But it may be conjectured that the religious spirit of mankind is probably not as old as its family life. This conclusion may be inferred from the fact that family life is prevalent among the higher apes, but there is no behavior on their part that can be detected which resembles religious experience. The impulse that underlies family or-

ganization is older than that which underlies religion. The latter requires further development of the mind and imagination. But even so, this development may have taken place in the very early stages of culture, so that it is possible that religion goes back to the beginnings of culture itself.

All this reasoning is highly speculative, but quite definite is the fact that religion is a very ancient institution. The Neanderthal men who lived 25,000 years ago seem to have had it. This inference is warranted by the fact that many of the skeletons were found buried, that is, laid down in a definite position. In the burial mounds were also found stone tools, suggesting perhaps that these men believed in an afterlife.

Noteworthy also is the fact that all the preliterate societies known to us have religion, even those with the simplest food-gathering cultures. An examination of the religious organization of these peoples throws a good deal of light on the beginnings of the institution.

The nature of supernatural powers. Although it is clear that individuals in the simplest cultures believe in supernatural power, it is difficult to describe their beliefs with exactness. The problem is somewhat like that of individuals in our own day who believe in God, but who, if pressed for details, might have some difficulty in delineating their conception of Him. It is difficult to describe the supernatural belief precisely because it is supernatural, that is, outside ordinary natural terms. The religions of many simple peoples are, if anything, more involved than our own, and more difficult to analyze.

The common core of all, however, seems to be the belief in a supernatural impersonal power, a sort of electric current that courses through the world and is capable of accomplishing all sorts of things not otherwise possible. *Mana* is the name which the Melanesians and Polynesians have for this power; the Eastern Algonquins called it *manitou*; while some of the Plains tribes referred to it as *wakan*. Although impersonal and diffused, this power is capable of entering into objects and persons, giving them properties and capacities they previously lacked. Among the Marquesans, for instance, it was felt that a man who had difficulty in retaining the tribal lore was lacking in *mana*, whereas one who was specially versed in the folklore had this facility because he had considerable *mana*. In sections of Polynesia, for example, Tahiti, the chief has so much *mana* that whatever he touches belongs to him. The idea of the divine right of kings derives from the fact that the rulers are thought to be endowed with special supernatural power.

This belief in supernatural power needs to be distinguished from another idea widely held by primitive peoples, the one that all things may be alive. The primitive mind is capable of investing with life all sorts of things, such as rocks, trees, and clouds, a practice which is designated animism.[1] These things are alive but they need not have supernatural power, just as man is alive but may lack *mana*. However, objects are on a par with man in their amenability to such power. Deference will be shown certain rocks or trees or animals that are thought to be especially possessed.

The quality of being alive was thought by primitives to be caused by spirits. These spirits were apparently regarded as shadowy substances or soul-stuff, not non-material like *mana* and yet not completely material like the body itself. The Murngin, a simple people of Australia, believe that death occurs when the spirit leaves the body and returns to the totemic well from which it originally came, where all the spirits of the ancestors reside.[2] Likewise, illness is thought to be caused by the intrusion of an alien or evil spirit into the body.

Some spirits have more power than others. Thus most animals have their Masters or spiritual rulers, even as man has his gods. Primitive man might seek communion with them all, certain powers being approached for particular purposes. The gods of the Baganda of South Africa include the moving spirits associated with such things as the hills, rivers, and animals; Mukasa, the god of plenty; Kibuka, the god of war; Nenda, the subgod of war; a god of the chase; one of the plague; and so on. Over all these gods is Katonda, the chief god, who has little to do with human beings directly.[3]

There is general belief in supernatural powers among preliterate peoples, but there is also considerable variation in the nature of these beliefs. The fact of extreme variability needs to be emphasized here, although of course this is a characteristic of other aspects of culture as well. The higher powers may be vague or specific; personal or impersonal; one or many; ancestral; anthropomorphic; or cosmic. While most preliterate peoples have a hierarchy of lesser gods headed by an All-Father, the Kagaba of South America and the Amazulus of South

[1] Following the lead of Marett, many writers believe that the idea of impersonal power, or *mana*, is more primitive than animism, or the idea of spirits. While this may be true, it has not been demonstrated that the former precedes the latter. Cf. R. R. MARETT, THE THRESHOLD OF RELIGION (New York: The Macmillan Company, 1914).

[2] W. L. WARNER, A BLACK CIVILIZATION (New York: Harper and Brothers, 1937).

[3] J. ROSCOE, THE BAGANDA.

Africa have actual monotheism, that is, a single god as is the case in modern religion.[1] Again, most supreme deities are men; but the chief of the supernaturals among the Central Eskimo is Sedna, a female; and a female deity presides over the Bella Coola Indians of British Columbia.[2] Today in our cultures the supreme being is less personified than in former times, yet in some primitive religions the supreme power is also a mystical force, not greatly unlike the modern conception.

The religious experience. While regarding as important the nature of the powers believed in, many students of religion point to the religious experience itself as the essential element. This is sometimes referred to as the religious thrill,[3] and has to do with the attitudes and emotions that are directed toward the supernatural powers. Here again there is great variation in different cultures and at different times. The cluster of reactions to religious belief may include elation, fear, awe, love, admiration, serenity, and others. The fear element is strong in many primitive religions, but in modern systems the opposite reaction of peace and comfort is stressed, as is suggested for instance in the well-known hymn "Lead Kindly Light." It may be possible for a people even to hate their deities, as the following statement about the Moi or Sedang of northwest central Annam, Indo-China, reveals.[4]

> The Moi does not feel that the supernatural beings are well disposed toward him. Nor does he feel that these entities are just and good. Their superior power, their ability to enforce their will by intimidation is not due to the fact that they have a finer nature. A finer nature and a kind disposition is ascribed only to the supreme, but otiose deities. These supreme beings are not human in their outlook. Even though they are said to be kind, this character is ascribed to them formally and has little support in concrete instances where they intervene. Thus, a child in the womb is asked by the supposedly benevolent Creatrix Grandmother Knda: "Do you want to be a man or a woman, rich or poor? Do you want to die a natural or a violent death?" Whatever the child asks for, the opposite is granted to him. (Native remark: That is why most people are poor.) The supreme beings of the second order of importance are culture heroes

[1] PAUL RADIN, PRIMITIVE MAN AS A PHILOSOPHER (New York: D. Appleton-Century Company, 1927), pp. 351, 357.

[2] FRANZ BOAS, "THE MYTHOLOGY OF THE BELLA COOLA INDIANS," JESUP NORTH PACIFIC EXPEDITION (New York: Museum of Natural History, 1898), vol. I, part II.

[3] A. A. GOLDENWEISER, EARLY CIVILIZATION (New York: Alfred A. Knopf, 1922), p. 233.

[4] The authors are indebted to DR. GEORGE DEVEREUX, Department of Research, Worcester (Mass.) State Hospital, for this statement based on his protracted field study of the central division of the Sedang tribe.

who administer the world on behalf of the supreme deities. They too are said to be good, but, except for the protectrice of wild animals, they do not seem to show any active kindness nowadays. The protectrice of wild animals shows her kindness to man by punishing the wild beasts who have sinned, and making them fall into traps. These are gifts to men. If men hunt, it is theft and has to be paid for. A symbolic fine and damages are paid to the protectrice of wild beasts. All Moi acknowledge the Creator-pair, the Sun and the Moon, and their administrators, the supreme beings of the second rank, as being supreme and good. They pay so little attention to them that at feasts they merely mean to invite them, but do not actually bother to invite them by name — except if someone happens to be very punctilious.

The supernaturals which the Moi do worry about are the Thunder-beings. In times of old these Thunderers lived with the Ancestors as the Ancestors equals; and invariably came out second best in clashes with the latter. At last they became weary of being bested and pushed around by the Ancestors and separated from mankind. They became invisible, not by becoming invisible in themselves, that is, disembodied, but by pulling a rice-pot over the eyes of men and thus blinding them partially. Only sorcerers have the rice-pot lifted a bit on occasion. Man is the cattle (buffaloes) of the Thunderers to whom they "belong." If they sin against the obiter dicta of their "protectors," their protectors take revenge by kidnapping their souls and selling them to enemy Thunderers (protectors of other tribes,) who will eat their souls. Or else they kidnap them bodily and hold them for ransom (sacrifice). (Cf. protectrice of wild beasts "punishing" beasts by handing them over to man.) The Thunderers "lay down the law." This law is not necessarily either good or useful to man. It is an exaction. The spirit in which sacrifices are made is not one of hoping for help. They sacrifice so that the Thunderers and other minor supernaturals won't *spoil* the crop, etc. The relationship between man and Thunder is the relationship between a gangster and a policeman to whom the former pays protection money. This is to be understood not figuratively but literally. Naturally the Moi resent these exactions. "If I could but see the spirits, I would plunge my spear into their bellies" is a frequent and fervently voiced utterance.

These comments suggest the very wide variation to be found in the expression of the religious spirit of mankind.

Magic. The religion found in simple material cultures is often much like what is today called magic. The people or the religious leaders attempt to control or coerce the powers by magical practices, such as rubbing a stone on a diseased portion of the body to make it get

well, or the carrying of a fetish such as a bunch of feathers of a certain bird, to ward off danger on the hunt. Some authors choose not to characterize this type of practice as religion, since the principal interest seems to be manipulation and coercion. The result is presumed to follow directly from the magical practice such as the incantation or recitation of supernatural words. In the case of religion, it is felt, the attitude is more humble; in prayer, for instance, the spirit is one of worship and entreaty. Lowie reports that in New Zealand "magical incantations virtually usurped the place of prayer." [1] It should be noted, however, that the distinction between magic and religion is in part a social one. As a new and more profound concept of religion evolves, the differentiation from the older magic occurs. But even so, many similarities between magic and religion remain. Both recognize supernatural power and both attempt to establish some relation with it.

Writers on magic have sought to differentiate a number of varieties. In the most complete work on primitive magic available, *The Golden Bough*,[2] Frazer distinguishes two kinds, imitative and contagious. In imitative magic an individual imitates what he wishes to happen, and the result is assumed to occur automatically. To bring rain a vessel may be filled to overflowing with water. To get rid of an enemy, a wax image of him is made, and pierced with a needle.

Contagious magic operates on the principle that whatever comes into contact with supernatural power is swayed by it. Hence the resort to fetishes as indicated above, the wearing of amulets, the use of a mascot, and similar practices.

Lowie adds spells as still another sort of magic; and the types can no doubt be further elaborated. Although such classification is of value for purposes of analysis, it may be well to observe that primitive man himself scarcely makes such distinctions. Underlying all magic, it seems, is the power of the will, the idea that there is a relation between what one wishes for and what actually happens.[3]

The early organization of religion. These early religious beliefs which manifest themselves in organized magical practices, are applied through-

[1] ROBERT H. LOWIE, AN INTRODUCTION TO CULTURAL ANTHROPOLOGY (New York: Farrar and Rinehart, 1934), p. 299.

[2] New York: The Macmillan Company, 1900.

[3] Cf. BRONISLAW MALINOWSKI, "MAGIC, SCIENCE, AND RELIGION," in JOSEPH NEEDHAM, editor, SCIENCE, RELIGION AND REALITY (London: Macmillan and Company, 1926), p. 75; also L. L. BERNARD, "A PSYCHO-SOCIOLOGICAL INTERPRETATION OF MAGIC," PUBLICATIONS OF THE AMERICAN SOCIOLOGICAL SOCIETY, 22:64–73, 1928.

out the various activities of man. The manifestations are found most frequently at crises: birth, death, sickness, puberty, marriage, menstruation, volcanic eruptions, droughts, and combat. Disease is particularly subject to magical rites and one may thus say that medical practice among primitive peoples is closely affiliated with religion. Indeed, healing is almost wholly an affair of magic and religion.

Early religion is also closely related to the economic organization. Although much gathering and preparation of food, as well as fabrication of objects, goes on day by day without reference to *mana*, a charm may be worn for luck in the hunt, and various practices are undertaken at the different seasons to make the earth fertile.

Family life is also closely related to religion. Marriage has its own ceremonies, and birth is safeguarded by magical practice. Likewise the education of youth in the folk habits and lore, although a natural part of community life, has its religious connections. Puberty is among many preliterate people a period when the young are especially susceptible to education. This is the transition period from childhood into womanhood or manhood. Elaborate public ceremonies of a semi-religious nature which involve suffering, fasting, and the seeing of visions are performed at this time to impress the adolescent with the demands of the new life. Religion thus runs through the daily activities of early man.

A description of the organization of early religion is not adequate without an account of the religious leader, known as the medicine-man, or shaman, the early counterpart of the priest. He ranks with the chief, or head man, as one of the early leaders, for in him is specialized the power of dealing with the supernatural. The accounts of the shaman among different peoples show him to be often neurotic,[1] and his visions and trances suggest epileptic tendencies. Although he is set apart from the other members of the group, his abnormalities have become socialized so that he is not thought of as an abnormal person to be ostracized, but as a highly useful and gifted individual. He himself seems to have special powers and is probably above the average in thinking ability, imagination, and insight. He is often paid for services in times of sickness and danger, and for his prophecies concerning the future. In addition to his religious and medical functions he also specializes in the folklore, myths, creation stories, and history of his people. He is some-

[1] Australia is an exception. Here the shaman appears to be an entirely normal but very shrewd individual. For detailed description of the shamanistic seance among the Chuckchee, see ALEXANDER GOLDENWEISER, ANTHROPOLOGY (New York: F. S. Crofts and Company, 1937), pp. 249, ff.



FIGURE 116. ESKIMO RELIGIOUS LEADERS

The shaman, shown above driving away evil spirits, is a very powerful figure among primitive peoples, and religion is often highly organized around such leaders. After RASSMUSSEN, THE PEOPLE OF THE POLAR NORTH, *p. 150.*

thing, therefore, of a learned person and teacher. The province of the shaman is the world of ideas, especially about the unknown. As the craftsman develops basketry or tools of stone, so the shaman deals with the systematization of thought about causes and effects in the little understood phenomena as expressed in folklore and mythology.

GROWTH OF RELIGIOUS INSTITUTIONS

THE DEVELOPMENT OF RELIGIOUS ORGANIZATION

From these beginnings under the leadership of the shaman's religious thought, practice becomes elaborated and differentiated. As indicated above, the vague ideas of primitive man about the supernatural become more specifically formulated into animistic philosophy, where inanimate objects become personified. For instance, the sun bestows blessings as a person might. Animals are thought to have marvelous powers: the snake, on a hot day, may bring rain. Although in some cultures the concept of a supreme being has been reached, the spirits are generally thought to assume shapes of animals, gnomes, fairies, heroes, tricksters, rulers, or parents. The life of spirits outside the body is imagined, with

the aid no doubt of dreams, hallucinations, and visions. The idea of ghosts, and of life after death with an abode for the spirit or ghost, is constructed. The powers of the ruling spirits are worked into the origin of things, and creations are explained.

Increasing religious elaboration and differentiation. As the conceptions of the mysterious powers are worked up into a hierarchy and their functions are systematized and related to life, so also the shaman's method of dealing with them becomes elaborated and differentiated. The general idea of sacrifice as a method is evolved. To placate a definite spirit, foods and living animals, and in some cases human beings, are sacrificed to it.

The notion of taboo arises. Some object is not to be touched, eaten, passed by, or spoken to. If one breaks the taboo the spirits or gods are angry. From this source comes the idea of sin, which plays an important part in religion.

As the spirits become embodied and behave more or less like human beings and animals, although with remarkable powers and capacities, the religious leaders may deal dramatically with them, as when a living sacrifice is made, or an elaborate dance of the snakes is undertaken to change the weather, or the sexes show by the ritual of the corn dance that they want the crops to become fertile. The myths are also dramatized, and religious practices become elaborated into dances, ceremonies, and festivals. The winter solstice in the north when the days begin to lengthen is celebrated by the religious leaders, using plants with special properties, together with offerings, prayers, and religious songs. Such has been the history of the festival now known as Christmas even in pagan times.

Variation in the evolution of religious organization. These conceptions of supreme powers and the procedures for dealing with them required a long time to evolve, very much as it took a long time to develop dwellings from caves, lean-tos, and dugouts. Religion occupied a field of thought correlated with philosophy, science, history, ethics, and psychology, and the best intellects of the shamans and priests were required to invent, formulate, and systematize the concepts described above.

It must not be thought, however, that the evolution of religious organization proceeds in detail from stage to stage. There is some magic in the higher religions and a belief in a supreme being in some magic-ridden cultures. So, too, while monotheism, the belief in one God, was achieved by a few primitive peoples,[1] a number of advanced groups like

[1] PAUL RADIN, MONOTHEISM AMONG PRIMITIVE PEOPLES (London: Allen and Unwin, 1924).

the Egyptians, Greeks, and Romans had polytheism, a hierarchy of gods. Likewise the Australian blackfellows, with a very meager material culture, developed ceremonials and ritualistic rites which surpassed in elaboration those of many peoples more advanced in technology. The situation here is much the same as that which was shown to exist in the case of government. Although certain broad evolutionary trends in religious organization can be indicated, there is no necessary correlation between the details of religious practice and the level of material culture of a people. The forms of the religious life depend in large part on the emotions and the intellects of the religious leaders, which in turn rest upon the culture in which they live.

As the spirit world became more varied and definite under the formulating abilities of religious leaders, the emotional reactions of the religious members of the group changed. Fear and awe no doubt remained prominent, especially since the hazards of life continued. However, the idea of goodness became associated with the powers, especially among the agricultural peoples, in such situations as called for the fruition of crops through the production of rain and the beneficial light of the sun. When the powers of the gods reached out over creation and when they were conceived as the dispensers of goodness and the appreciators of good conduct, man's emotional responses were often those of humility, of glorification of elation at being identified with the qualities of the gods. This attitude is very well illustrated in this hymn of the Incas:

Goldtiled thy temples
Oh! God of the Sun!
Blood red the battles
That for Thee we've won.
Here from the High Priest Rock
The sunrise kiss we send
Eastward to Thy Gold-red Orb
Rising years without end.

Ice-helmeted warriors,
Thy Andean Peaks stand
Ranged 'long the thousand miles
Of thy desert lands.
Morning and evening
Their rose pink cloaks they don.
Their clouds are scarfs of Thy colors,
Oh! Mighty God of the Sun.

The organization of religion continued to penetrate the various other major social activities, such as family life, acquisition of food, medical practice, recreation, government, and war. In some cultures the ideas of spirit-ghosts and life after death led to a concentration of religion in the great family organization where the patriarchal head was supreme. In some areas there was ancestor worship, a condition, however, not found among peoples with material cultures simpler than agriculture. The religious significance of the totem establishes a connection in early times of religion and state, if the clan can be thought of as a rudimentary state. Also, the gods were frequently invoked in cases of group conflict, so that the gods were believed to be on the side of the victor.

Religious organization in agricultural society. When the culture reached the stage of agriculture there had developed a large variety of material goods, of property, some preservation of foods, as well as a more stable location of habitation and community. The community was thus in a better position to support the religious leaders. These leaders developed into a priesthood. Sanctions and holy places and churches appeared where religious services were held. Thus in a society where the people were busy with planting, reaping, tending cattle, sheep, and goats, weaving, spinning, and making pottery, there was a class of leaders who concerned themselves with abstract thought, practical magic; who speculated on the unknown aspects of life; and lived in communion with religious beings. For example, among the Baganda there were three classes of religious leaders: priests, shamans, and medicine-men. The priests officiated at the temples of the national gods. At a single temple there might be as many as four priests, presided over by a chief priest. The shamans, or mediums, were "those possessed"; their trances would be "interpreted" by the priests. The medicine-men, of whom there were several for each tribe, were in great demand not only for the treatment of illness, but for the amulets which they manufactured.[1] There thus came to be set up in society a group of religious leaders, even as there were military leaders. Society was early differentiated along religious lines.

The interconnection of religious and social organization. As has been observed, the religious world was not wholly separated from the affairs of daily life or from the institutions of any particular culture. Even though there grew up a priesthood that officiated at ceremonies, conducted rituals, and ministered at the various crises of life, the connection

[1] J. ROSCOE, THE BAGANDA, p. 279.

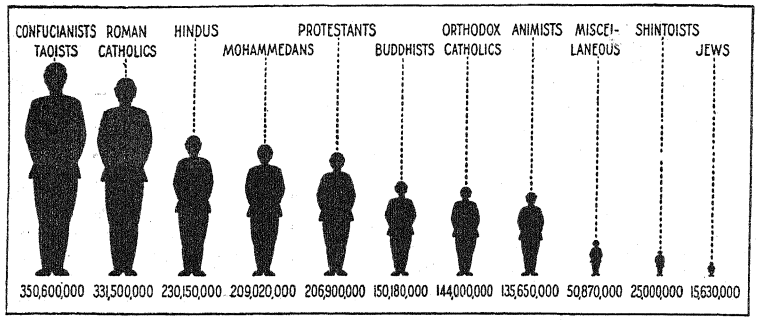


FIGURE 117. MEMBERSHIP OF THE RELIGIONS OF THE WORLD

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between this emerging religious-social organization and the other institutions continued close for a time. Prayer was offered at planting, and thanksgiving at harvest time. Medical practice was often accompanied by prayer or promises of better conduct. Ethical codes were touched with religious sanctions.

Such connections with the other social organizations are found in most of the great religions of the world.[1] The great religions of today have spread beyond language and national barriers and are not correlated strictly with types of culture. In India are found Buddhism, Mohammedanism, and Hinduism. In China are Confucianism, Taoism, and Buddhism. In Japan are Buddhism and Shintoism. Mohammedanism centers around Arabia, while in Europe the religions of the Greeks, Romans, Germans and Celts have yielded to Christianity, which was brought also to America and Australia.

In all these religions there is an interpenetration of religion into the many other social institutions of the community. In the case of Confucianism in China, the connection is very close with the family where there is a system of ancestor worship. There also the connection with ethics is highly developed. In India, religion is bound highly to a caste system, hence definitely affects the whole range of social life.

In Europe, the connection between ethics and religion has been so intimate that many individuals consider them to be the same thing. Also in Europe during the Middle Ages, governing functions were common to

[1] Only crude estimates can be made of the number of world followers of these religions, as follows: Confucianists and Taoists, 350 million; Roman Catholics, 330 million: Hindus, 230 million; Mohammedans, 210 million; Protestants, 207 million; Buddhists, 150 million; Orthodox Catholics, 144 million; Shintoists, 25 million; Jews, 15 million.

both the state and the religious organization so that the two seemed to be merged, as in the Holy Roman Empire. Indeed the assignment either of governing functions to the priesthood or of religious functions to the chiefs has been fairly common. The church organization took over, for instance, the governing function in many new settlements in the American colonies in the course of the westward expansion before any civil governmental machinery had been set up. The vestrymen acted somewhat as a legislature. Likewise the history of medieval Italy, Spain, and France is filled with accounts of the civil powers of popes and cardinals.

Sometimes the church becomes an important social institution apart from its governmental functions. The church in America conducts schools, provides clubs for the different age groups, distributes philanthropies, gives social entertainments, has gymnasium classes, offers dancing facilities, and becomes generally the center of the social life of the members. The Negro church in America, after the abolition of slavery, represented almost the complete organized social life of the Negroes, who were by virtue of their color and status cut off from the other social agencies of the community. The Negro pastor became a general social leader, a sort of chief. So also in farming communities where the farms are not clustered in hamlets or villages, the church has important social functions, apart from its religious services.

Modern Religious Trends

The loss of functions of organized religion

Recent development of organized religion has been that of differentiation from other social organizations and from other departments of knowledge. The church has become separated from the state in a number of European countries, and any connection of the two in the United States has been forbidden by law. Most secular education is no longer undertaken by religious organizations in the United States, but is instead assumed largely by the national, state, and local governments. Like education, both art and music have been increasingly differentiated from religion. Relative to the situation in the past, few of the new productions in music, sculpture, or painting are of a religious nature.

As the science of medicine has advanced, religious qualifications for medical practice have become a negligible matter, though moral qualifications are insisted upon to a high degree. The churches still undertake philanthropies and social work, but even here it appears that such

services as insurance against old age, sickness, accidents, and unemployment are undertaken more readily by the state which has the support of the law and the funds of the taxpayer. Likewise in respect to the social functions, the churches must meet keen competition, particularly in cities, which house a larger proportion of the population than formerly. That is to say, certain functions previously exercised by the church are now shared by various other urban organizations such as clubs, associations, occupational organizations, and recreational institutions, which have no religious sponsorship.

History reveals, then, the transfer of group activities from ecclesiastical to civil and other non-religious agencies, a movement sometimes referred to as secularization.[1] Organized religion as a complex of functions has thus been reduced in size. Another way of stating the situation is to say that various non-religious functions that have in the past been gathered together in the complex of institutionalized religion have now been cut away, leaving the function of organized religion a more nearly religious one.

NEW CHURCH FUNCTIONS IN A COMPLEX, RAPIDLY CHANGING URBAN SOCIETY

The question of what functions the church will perform in the future is important. The trend toward the loss of function has been discussed. But the trend is not all one way, for new functions have been added by the church. These new functions result generally from the need of adjusting to new situations. Since the trend during the last century has been in the direction of developing an increasingly complex urban civilization, we can perhaps see what functions the church may perform in the future by considering the adjustment of the church in the urban environment.

One hundred years ago the United States and most of the countries of the world were largely rural. But as cities have increased and grown, they have drawn their population in large part from rural regions, since the growth of cities by excess of births over deaths accounts at best for only a slight growth. The rural migrants have brought with them many of their social institutions, one being the rural church.

City conditions are, however, different from those of rural life, and the church has been obliged to make adaptations to the new environment. In villages, people are well oriented socially, for they feel secure in the

[1] J. T. SHOTWELL, THE RELIGIOUS REVOLUTION OF TODAY (Boston: Houghton Mifflin Company, 1924).

close ties that obtain within the family and community.[1] Under the circumstances, there is no great need for special agencies to provide social contacts, and for the satisfaction of the recreational and other emotional needs of individuals. Quite different is the situation in the city, with its impersonality of contact and its loosely integrated family life. That the city church has sought to help meet this need for fellowship and sociability is evidenced by the fact that in a fairly large and representative sample of city churches there were two and a half times as many women's organizations as in rural churches, three times as many youth organizations, and twenty-five times as many men's organizations.[2] Table 31 presents 33 activities, exclusive of preaching, found in 357 Protestant city churches and shows how many other new functions have been added that appeal to urban population.

While the data in Table 31 show that the church is endeavoring to adjust to the urban environment, they also show that the problem of adjustment is difficult. The traditional church functions, Sunday School, ladies' aid society, and missionary society, which are carried on

TABLE 31. ACTIVITIES OF 357 PROTESTANT CHURCHES *

Organization or Activity	Per cent	Organization or Activity	Per cent
Sunday school	100	Mothers' or parents' organizations	20
Ladies' aid or guild	90	Young women's organizations	20
Women's missionary society	86	Dramatic club	13
Young people's society	83	Gymnasium classes	12
Chorus choir	76	Sewing classes	12
General social events	63	Kindergarten	9
Men's organization	58	Domestic science classes	9
Boy scouts	48	Employment office	9
Mission study classes	48	Music classes	7
Organized welcome	32	Visiting nurse	7
Orchestra or band	29	Health classes	4
Boys' club (not scouts)	29	English classes	4
Lectures	29	Dramatic classes	3
Library	28	Day nursery	3
Girls' club (not scouts)	27	Dispensary or clinic	2
Concerts	27	Civics and economics classes	1
Girl scouts or equivalent	21		

* H. PAUL DOUGLASS, *op. cit.*, pp. 56, 79.

quite generally by rural churches, are most widespread in the urban area, while only 12 per cent of urban churches have gymnasium and

[1] See Chapter XVII, "Characteristics of Communities."

[2] H. PAUL DOUGLASS, 1000 CITY CHURCHES (New York: G. H. Doran and Company, 1926), pp. 81–82.

sewing classes, nine per cent an employment service, and two per cent a dispensary or clinic. The city church is new, which doubtless accounts for some of the lag, which in time may be taken up somewhat. But the great expense of these new functions must also be taken into account in any consideration of what the church may be expected to do in the way of adding them. Important, too, is the competition along these lines provided by highly specialized and efficient agencies that have evolved to meet urban needs. City playgrounds, parks, libraries, museums, movies, theaters, bridge clubs, and professional sports provide fuller facilities for social and recreational activities than the churches can.

For these reasons many church leaders are now opposed to secularizing the church by adding these new facilities, while still other leaders object to the new activities on the grounds that they obscure the primary religious functions of the church. The question may be raised, therefore, as to whether the church plays as substantial a rôle in the city as in the village. In villages, about two thirds of the adults are inside the church, while in large cities of 300,000 or over 59 per cent are church members.[1] Nor does membership tell the whole story. The hold of the church is much greater in the village, for here the church benefits by the intimacy of contacts, the compulsive force of public opinion, the greater solidarity of family life, and the relative scarcity of competing special-function associations.

THE CHANGING FORMS OF RELIGIOUS BELIEFS

Another way in which organized religion has changed from the past is in the nature of beliefs that are held. This change is due in part to the advance of science which has pushed back the frontiers of the unknown and necessarily modified the ritualistic and doctrinal nature of the stimuli that call forth the religious response. The stars are no longer thought to be candles lighted by the angels, nor is it so commonly believed that heaven, the home of God and the angels, is located above somewhere in the neighborhood of the stars. At one time it was not known that the earth was round, and religious leaders believed it was flat. Now, priests and preachers in general no longer believe that the world is flat, since by traveling around it they have proof that it is not so. Copernican astronomy, long rejected as incompatible with Scripture and Aristotelian cosmology, is now taken for granted.

[1] H. PAUL DOUGLASS and EDMUND DE S. BRUNNER, THE PROTESTANT CHURCH AS A SOCIAL INSTITUTION, pp. 39 and 41.

The forms of religious belief have undergone many changes in the past in different religions. The Greeks believed that their gods lived on Mount Olympus, a neighboring mountain. The Hebrews, prior to the time of Moses, also had relations with a number of deities, each tribe having its own divinity and often even each family. The allegiance to one God dates back to Moses' experience with Jahveh, the God of Mt. Sinai, south of Palestine, with whom a compact was made in return for his deliverance of the Jews from captivity. Religious belief has held that it is harmful to eat the meat of any animal with a cloven hoof; and many religions have believed that property buried with the dead would be useful to them in afterlife.

Though the church can and does adjust to changing beliefs, the adjustment is often difficult and comes but slowly.[1] The Copernican doctrine that the earth moves around the sun, and not the reverse, was vigorously opposed by religious authorities before it was finally accepted. Galileo, on pain of torture and death, was forced to recant his theories concerning the natural world. More recently the theory of evolution, with its teaching that man has slowly emerged from an animal ancestry, has been bitterly opposed by fundamentalists as contrary to the Biblical teaching concerning the special creation of man; the teaching of evolution has been prohibited in certain localities. An increasingly large number of religious people, however, take the modernist position and see in the facts of organic evolution nothing inconsistent with a belief in God and progress. Indeed, in biological evolution modernists see evidence of divine plan and purpose. Modernists find nothing in modern science to prevent belief in a divine or ultimate power, shaping the world for the better.[2] With Tennyson they look ahead to the

> far off, divine event
> Toward which the whole creation moves.

The forms of religious belief have always been linked with the state of knowledge. The two fields, belief and knowledge, impinge on one another. As knowledge has changed, the forms of belief have been readjusted. Old forms have been given up and new forms added. Some

[1] A. D. WHITE, HISTORY OF THE WARFARE OF SCIENCE WITH THEOLOGY IN CHRISTENDOM, 2 vols. (New York: D. Appleton and Company, 1897).

[2] S. MATHEWS, THE FAITH OF MODERNISM (New York: The Macmillan Company, 1924); LYMAN ABBOTT, THEOLOGY OF AN EVOLUTIONIST (Boston: Houghton Mifflin Company, 1897); H. E. FOSDICK, AS I SEE RELIGION (New York: Harper and Brothers, 1932).

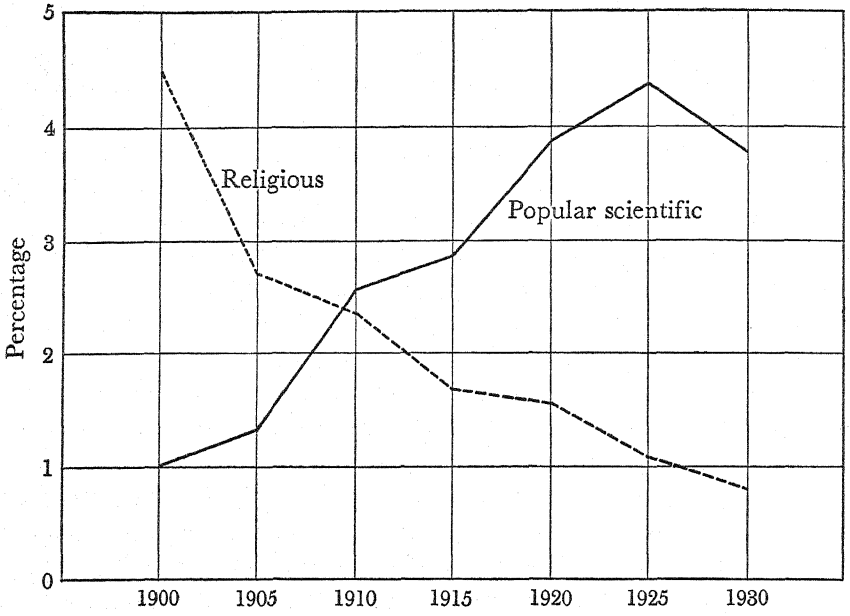


FIGURE 118. SHIFTS IN EMPHASIS ON RELIGION AND SCIENCE AS SHOWN BY REPRESENTATIVE PERIODICALS

The above chart shows the percentages of religious and scientific periodicals in the total circulations of representative periodical groups, 1900–30. The curve represents the discussional interest only. For instance, at one time there was much discussion among religious groups on the question of whether or not the earth was flat. The decline of discussion usually accompanies the acceptance of the changed conception. On the same basis, the curves shown above probably do not mirror the degree of acceptance of science and religion. From RECENT SOCIAL TRENDS *(New York: McGraw-Hill Book Company), p. 391.*

of our best students of astronomy are the most devout religionists.[1] They know the locations of the stars, their distances from the earth, their motions, and their sizes. In all their study of the stars they have not been able to see the heaven that was once believed to be up there, yet their religious faith is unshaken. Similarly physicists,[2] who are among our closest students of natural law, see nothing in modern physics that is incompatible with the belief in a deity. As the frontiers of knowledge have been pushed outward, new visions of the unknown are opened up that were not imagined before. The electron, relativity, the nature of matter and motion, the moving galaxy of suns, have given us a world undreamed

[1] See articles by A. S. EDDINGTON, SIR JAMES JEANS, ALBERT EINSTEIN, and others in HAS SCIENCE DISCOVERED GOD? edited by EDWARD H. COTTON (New York: Crowell, 1931).

[2] ARTHUR HOLLY COMPTON, "CAN SCIENCE POINT THE WAY?" FORUM, 97:272–76, May, 1937.

of a few years ago. Only the form of belief is changed by science, not belief itself. Indeed, many religious thinkers claim that the essence of religion is not the form of the belief, but the nature of religious experience. Religious experience may at any one time be linked to a particular belief, such as ancestor worship in China, but religious experience is fundamentally independent of any particular belief, except belief in divine purpose.

THE PRESENT NEED FOR RELIGIOUS EXPERIENCE

That the essence of religion is religious experience is claimed both by ethnologists studying primitive religions and by modern theologians. These thinkers point out that, while religions differ in their beliefs, religious experience is common to all religions. What is religious experience? It is difficult to describe. It is better appreciated by feeling it. It may occur in a communion with a higher being. It is felt in a loyalty to noble cause. There is an ecstasy in the feeling of oneness with a power greater than ourselves. When the travail of spirit seems so great that we are unable to bear it, religion may bring the peace that passeth understanding.

There seems to be little question that the trend of modern culture is such as to make this need for religion a very genuine one. For instance, the modern city sometimes brings a loneliness in the midst of thousands of fellow beings more intense than that felt by the hermit. A lonely person once said "a pane of glass separates me from reality." Reality was there, he could see it, but he could not become a part of it. Religious experience seems to transform such a sufferer and brings cool water to parched lips. Saint Paul felt it on the road to Damascus. Saint Augustine has written about it, and John Bunyan has described what it meant to him. So have many others. We quote here from Tolstoy,[1] who suffered as have many others who lacked emotional integration and a sense of high purpose in life.

> I remember one day in early spring, I was alone in the forest lending my ear to its mysterious noises. I listened and my thoughts went back to what for these three years, it was always busy with — the quest for God. But the idea of him, I said, how did I ever come by the idea?
>
> And again there arose in me, with this thought, glad aspirations toward life. Everything in me awoke and received a meaning.... Why do I

[1] LEO TOLSTOY, MY CONFESSION; quoted in WILLIAM JAMES, THE VARIETIES OF RELIGIOUS EXPERIENCE, p. 185.

> look farther? a voice within me asked. He is there: he without whom one cannot live. To acknowledge God and to live are one and the same thing. God is what life is. Well, then live, seek God, and there will be no life without him.
>
> After this things cleared up within me and about me better than ever, and the light has never wholly died away. I was saved from suicide. Just how or when the change took place I cannot tell. But as insensibly and gradually as the force of life had been annulled within me, and I had reached my moral death bed, just as gradually and imperceptibly did the energy of life come back. . . . I gave up my life of the conventional world, recognizing it to be no life, but a parody on life, which its superfluities keep us from comprehending.

Tolstoy gave up his life as a nobleman, embraced the life of the peasants, and was sustained ever afterward by his faith, spending his time doing good works.

Sometimes the temptations of cultural stimuli cause us to react in ways that we feel ashamed of. Our conscience hurts us. Religion provides a confessional that brings a profound relief to a tortured soul. Many persons feel the need of a purpose in life that is above that of worldly ambition. High purpose is a unifying force that brings the centrifugal forces of our random desires together. There is a resulting integration of personality that means a better adjustment to the harassing disturbances of life. At other times the strain is so great that we feel the need of a good shepherd who will lead us by the still waters and make us to lie down in green pastures.

Why human beings need religious experience is difficult to say. It is probably related somehow to the nature of adjustment of human nature to culture. The strain, the loneliness, the yielding to temptation, the worry, the mental conflict, all indicate an unsatisfactory adjustment of our emotional life to the demands of culture. Most observers of human behavior recognize all these conditions as existing among the people. They seem to have resulted from social life all through history and in preliterate times. If religion brings peace to the soul, eases the almost intolerable strain, provides a helpful philosophy for the good way of life, or arouses us to a nobler aim of accomplishment, then it is apparent that there is a great need for religion.

There are those who feel that we can get along without religion. But they reckon not with the value of religious experience. The need is greater at one time than at another, and is felt more keenly by one person

than another. There is much strain in modern life. Our hospitals are filled to overflowing with the mentally sick. Perhaps one reason is the failure of religion to help where the strain of life seems to be increasing. Unfortunately, religious faith is generally coupled with a specific creed, and the shattering of the latter by new knowledge means for many persons the shattering of their faith as well. They fail to see that religious experience is independent of particular beliefs and that they may reorganize their beliefs in the light of the new knowledge. The church also has a responsibility for this situation, since it lags greatly in adjusting its creed to new facts and viewpoints.

THE CHANGING SOCIAL TEACHINGS OF THE CHURCH

One aspect of the church which may be singled out for special discussion is the ethical function. Nearly all organized religions sanction codes of conduct that guide the individual along the path of rectitude. Confucianism in its original form was essentially a system of ethics. The great prophets of Israel made the search for justice the heart of Judaism. Fealty to Jahveh, they said, meant doing one's duty toward one's fellow man, the rituals of sacrifice and ceremony being subordinate to the ethical motive. "I hate, I despise your feasts and I take no delight in your solemn assemblies, though you offer me your burnt offerings and sacrifices I will not accept them, neither will I regard the peace-offerings of your fed beasts." [1] Rather, "let justice flow like a river, and righteousness like a mighty stream." [2] "What doth the Lord require of thee but to do justly, and to love mercy, and to walk humbly with thy God?" [3]

While there seems to be little tendency for ethics to leave the church,[4] the problem is rather one of kind. What kind of ethics shall the church teach? Religion generally assumes moral jurisdiction over the conduct of the individual. But should the church also presume to advise the right thing to do on social questions? If it is a sin for an individual to injure the health of a little child, is it any less a sin to employ little children

[1] AMOS, 5:21. [2] *Ibid.*, 5:24. [3] MICAH, 6:8.

[4] Rather there seems to be increasing emphasis on the ethical function, as established metaphysical conceptions are challenged by science, and the trend toward secularization of group activities continues. In some systems of religious philosophy, such as ethical idealism and humanism, ethics are ascendant. The Ethical Culture Movement represents this viewpoint. [Cf. FELIX ADLER, AN ETHICAL PHILOSOPHY OF LIFE (New York: D. Appleton and Company, 1918); C. F. POTTER, HUMANISM, A NEW RELIGION (New York: Simon and Schuster, 1930).] Modernists also stress the ethical function of religion. [Cf. S. MATHEWS, THE FAITH OF MODERNISM (New York: The Macmillan Company, 1924). H. F. WARD, THE NEW SOCIAL ORDER (New York: The Macmillan Company, 1919).]

long hours at labor in factories, if such employment injures their health and retards their physical growth? Is it proper for religious bodies to take a stand on child labor legislation on the basis of right and wrong?

In general the practice is for the church so to instill religion in the individual that he will, as an individual, act rightly in regard to a social question. Thus a true church member would, in his personal behavior, take a stand against such child labor. But if he is an employer and all his competitors employ children, then competition will ruin his business if he raises his costs by employing higher paid adults. And what if the employer of children is not a church member? Then it is the duty of the church to bring him into the fold and deal with his morals as an individual. But it is argued this is an ineffective and slow way of dealing with a social question, for meanwhile little children are suffering. Hence social questions, it is claimed, must be dealt with by collective organized effort. Collective effort can secure an amendment to the Constitution which would enable society to prohibit child labor.

Social ethics should supplement individual effort and the various religious organizations should attempt to change the social system if need be, to prevent social evils, such as drunkenness, gambling, crime, poverty, ill health, political corruption, and war. Such is the present attitude of many religious leaders, who are attempting to direct the trends of religious activities. Poverty, they claim, means a higher death rate, a greater sickness rate, and inadequate education; to permit poverty is wrong, and the duty of the church is to eradicate it. The forces of organized righteousness with a wholehearted commitment to a program of social action could do much to improve the lot of mankind.

Important church groups have made a variety of pronouncements on the social action that the church advocates. The encyclical letter of His Holiness Pius XI [1] on the reconstruction of society dealt at length with the position of the Roman Catholic Church on capital, labor, surplus income, the power of the state, obligations and rights of property, uplifting the proletariat, social conflict between classes, employers' associations, labor unions, strikes and lockouts, monopoly and communism. The Protestant Federal Council of Churches of Christ in America [2] have stated their social ideals on money, the profit motive, a living wage,

[1] Encyclical Letter of Pope Pius XI on RECONSTRUCTING THE SOCIAL ORDER (New York: Paulist Press, 1931).

[2] JAMES MEYERS, CHURCHES IN SOCIAL ACTION (New York: The Federal Council of Churches of Christ in America, 1935).

health of wage-earners, social insurance, hours of labor, women in industry, collective bargaining, child labor, safeguarding the family, the agricultural problem, rural social work, the uses of liquor and drugs, penal reform, class conflict, war and free speech. Significant statements have also been made by the Presbyterians [1] and the Episcopalians.[2] The Central Conference of American Rabbis [3] have likewise made a declaration on social justice which deals with the distribution of profits, minimum wage, working hours, day of rest, factory conditions, child labor, workmen's compensation, health insurance, employment bureaus, collective bargaining, arbitration of industrial disputes, housing of the working people, mothers' pensions, dependents and delinquents, lynching, and immigration.

The various churches, then, have their religious principles, derived from the authoritative writings of the past, which they seek to apply to specific social action. These recommendations they are trying to build into codes of ethics applicable to modern social evils. New codes of social ethics are in process of formulation, very much as the codes of the Book of Deuteronomy must have once been formed. However, the rapidity of change today makes the task much more difficult, for the social problems of one decade are now not always the same as those of another.

SECTS AND DENOMINATIONS IN A HETEROGENEOUS, CHANGING SOCIETY

From very early times religion has been furthered by organization. Religions all over the world are organized with leaders, churches, property, as may be seen in Buddhism, Mohammedanism, Hinduism, and Christianity. Each of these groups has a variety of special organizations. For instance in the United States there are forty-four different denominations reporting more than 50,000 members. The two accompanying figures (Figures 119 and 120) show the nineteen leading denominations according to number of churches and according to the number of members, as of 1936, the date of the last census of religious bodies.

In addition to the forty-four religious organizations there are 171 smaller churches with fewer than 50,000 members each. Among these,

[1] THE SOCIAL CREED, WHAT THE PRESBYTERIAN CHURCH BELIEVES ABOUT SOCIAL PROBLEMS (New York: New Era Movement, 1911).

[2] SOCIAL SERVICE AT THE GENERAL CONVENTION OF 1922 (New York: The National Council, 1922).

[3] DECLARATION ON SOCIAL JUSTICE (New York: Central Conference of American Rabbis, 1920–22).

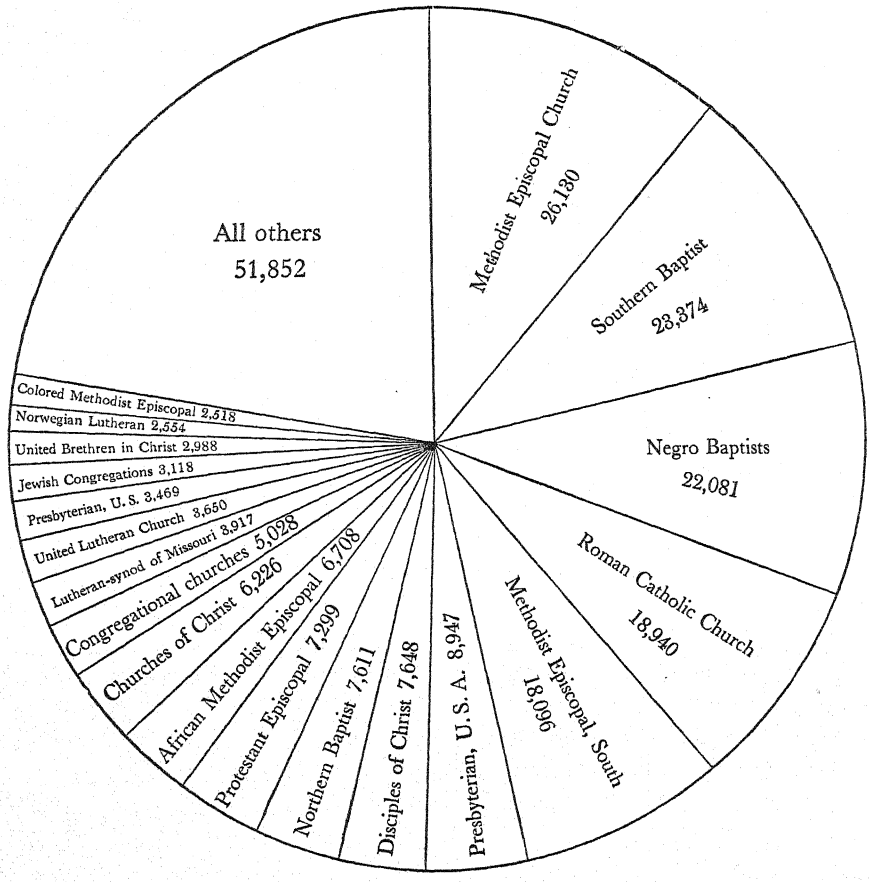


FIGURE 119. NINETEEN LEADING DENOMINATIONS ACCORDING TO NUMBER OF CHURCHES: 1926

From CENSUS OF RELIGIOUS BODIES, *1926* (*Washington: Government Printing Office, 1930*), *p. 14.*

to choose a small sample, are the following: The Apostolic Overcoming Holy Church of God, the United Zions Children, the Pillar of the Evangelistic Association, the Baha'is, the Defenseless Mennonites, the Pentecostal Holiness Church, the Two-seed-in-the-spirit Predestinarian Baptists, and the Original Church of God. The growth of organized religion has proceeded, then, with much differentiation.

When the religious organization of a relatively homogeneous and stable society such as that of a primitive people is compared with that of a heterogeneous, dynamic society such as ours, one is impressed by the

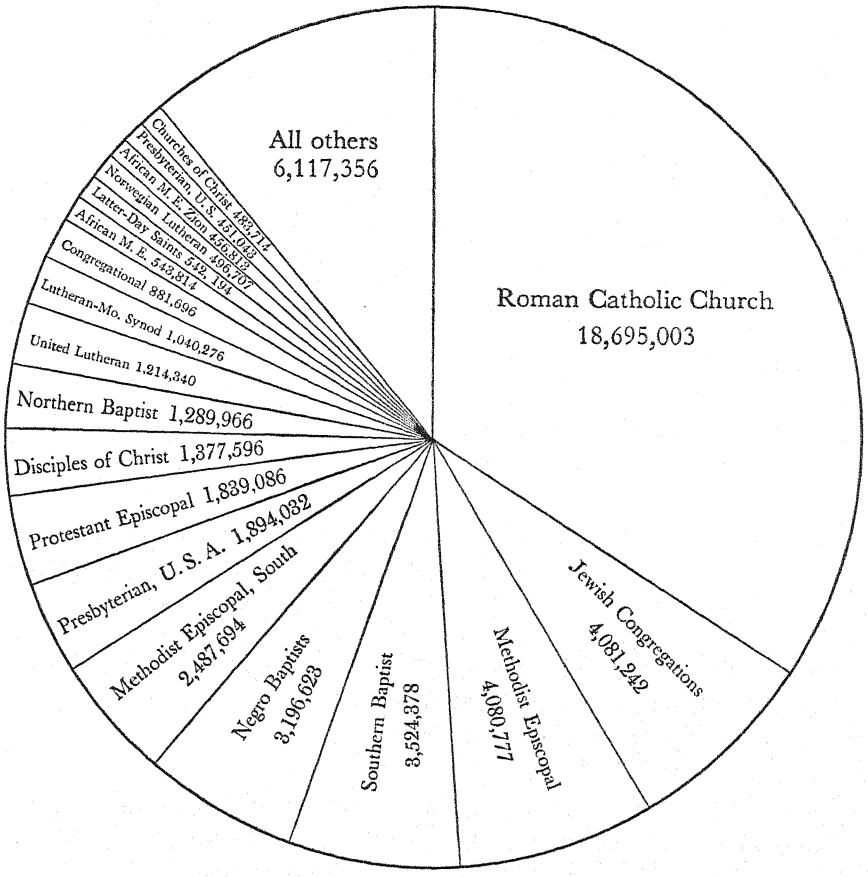


FIGURE 120. NINETEEN LEADING DENOMINATIONS ACCORDING TO NUMBER OF CHURCH MEMBERS: 1926

From CENSUS OF RELIGIOUS BODIES, *1926* (*Washington: Government Printing Office, 1930*), *p. 15.*

existence of many religious bodies in the latter, while the former shows a single united church. The presence of many different denominations and sects in a society means that the culture is differentiated into many parts, with differing group interests and viewpoints.

Sects are separatist and exclusive associations of individuals who have broken away from the established church to promote their own interests. Not only are there now various sects within the Christian Church, but Christianity itself was first a sect, arising in a time of discontent and rapid change as the religion of the disinherited, that is, the poor fisher-

men, peasants, publicans, and outcastes. A sect that survives settles down to build an organization by gaining converts, perfecting its machinery, influencing public opinion, and improving its economic status. Once established, the sect loses its militant character and becomes a denomination, continuing then in a state of accommodation to the other established religious bodies.[1] If its influence becomes great enough, as was true of Christianity after its embrace by the rulers and the upper classes, it becomes a major church.

UNITY AND CO-OPERATION IN RELIGIOUS ORGANIZATION

It would seem that there are enough religious denominations to meet the various belief needs of the people. But the question has arisen as to whether the forces of evil might not be better attacked by a concerted effort among all the various churches. The labor unions find that they must unite to fight employers who are organized into great industrial and financial corporations. Small units of any organization often war among themselves when they might be uniting against a common enemy. Such is the experience among the liberal and radical political bodies. Trotskyites seem to hate the Stalinites, the two divisions among American Communists, more than they hate capitalists. But these political bodies do at times organize into a United Front against a common adversary.

Leaders of the churches have appreciated the advantages of a united front, and know that in union there is strength. The Roman Catholics are strongly united. The various Protestant bodies organized in 1908 into the Federal Council of Churches of Christ in America, which has been an active federation since that time. After a third of a century this federated body is composed of representatives from twenty-four national Protestant denominations.

The work of the Federal Council has aided in building co-operative organizations in local and state areas, where national leadership was needed. They have also met with some success in co-ordinating the programs of the different denominations. In the Canal Zone the Federal Council is supervising a union church made up of four different denominations. The organizations of the departments of the Federal Council give some idea of their program. These departments are on

[1] For fuller treatment of sects and denominations see H. RICHARD NIEBUHR, THE SOCIAL SOURCES OF DENOMINATIONALISM (New York: Henry Holt and Company, 1929); ERNST TROELTSCH, THE SOCIAL TEACHING OF THE CHRISTIAN CHURCHES, translated by OLIVE WYON (New York: The Macmillan Company, 1931); ELLSWORTH FARIS, THE NATURE OF HUMAN NATURE, chapter V; "The Sect and the Sectarian."

Evangelism, Religious Radio, Social Service, Race Relations, International Justice, Research and Education, and Relations with Churches Abroad.

The movement for church unity takes a number of different forms and proceeds on a number of different fronts. There are, for instance, non-denominational voluntary associations like the Y.M.C.A. and the Y.W.C.A. Protestant denominations also integrate their programs in various fields, such as missions and religious education. In regard to the religious education, for instance, The Home Missions Councils represent federations of thirty specialized mission boards of twenty-five denominations; in 1933 the combined activities of the Councils required more than 21,000 paid workers in nearly 30,000 projects, at a cost of about twenty-five million dollars.[1]

Co-operation exists also between different national churches. Efforts to promote mutual understanding and goodwill between Catholics, Protestants, and Jews by discussion seminars and other means are being made by the National Conference of Jews and Christians.[2] In some local communities members of these three faiths co-operate in their social services and often join together to battle against corruption or for some obviously needed reform. National co-operation has been undertaken successfully on many special programs such as provision for refugees.

Complete mergers of denominations, while rare, have occurred in a few cases. In 1925 the Methodist and Congregational Churches of Canada, together with the greater portion of the Presbyterian Church, formed the United Church of Canada. In 1929, the Congregational and Christian Churches of America united, and in 1939 the Methodist Episcopal Church, the Methodist Episcopal Church South, and the Methodist Protestant Church merged once more after their long split over slavery. The word "ecumenical" has lately been revived in connection with efforts to increase the sense of fellowship and unity among Christians the world over. In 1938–39 ecumenical meetings were held at Oxford, Edinburgh, Madras, and Amsterdam, the latter attended by representatives of seventy-one national groups. In 1938 a conference at Utrecht drafted a plan for a World Council of Christian churches and by September, 1939, fifty-four national churches had voted to co-operate. It was planned to hold the first meeting in America in 1941, but the second

[1] H. Paul Douglass and Edmund de S. Brunner, THE PROTESTANT CHURCH AS A SOCIAL INSTITUTION, p. 226.

[2] Organized, 1927, and located at 300 Fourth Avenue, New York City.

World War proved to be a stumbling-block to successful organization.

The difficulties of concerted effort are great. The Interchurch World Movement was a post-World War movement that has not continued its formal organization. There are differences of belief which are natural obstacles to unity. Also it is difficult for the different denominations to work for a common social program. They can all be united against war at certain times rather easily, but there is a great difference of opinion on such things as a wise labor policy or on what reforms are needed in the capitalistic system.

THE THREAT OF NATIONALISM

The religions of today sense the need for unity for they have a competitor in nationalism. Indeed there are students who think that nationalism is a new religion that will supplant or overshadow the prevailing religions of Christianity, Buddhism, Judaism, and others.[1]

If religion be defined as a mysterious faith in some power outside or greater than man, toward which he is loyal with a devotion and reverence that expresses itself in ceremonial and ritual, then nationalism has many of the traits found in religions.

In Nazi Germany the state was supreme. Upon it the citizens bestowed loyalty and devotion. In Fascist Italy the totalitarian state was admittedly greater than any individual and demanded from individuals a loyalty equal to any sacrifice. The individual existed for the state. In Russia, communism is the form which nationalism espouses and it too is revered. Nationalism has its holy books. In Russia they are the writings of Karl Marx; Hitler's *Mein Kampf* served the same purpose in Germany. To criticize the writings of Karl Marx in Russia would not be tolerated any more than would be a criticism of the Bible in a Christian country. Lenin is about the equivalent of a saint in Russia.

In the course of time national heroes become so glorified that they hardly appear like ordinary mortals. The myth-making faculty of the human mind has thus distorted George Washington and Abraham Lincoln, so that they seem to have no human faults, despite the truth of the adage, to err is human. A mythology grows up about the early origins of a particular form of nationalism. For instance, in connection with the origin of German National Socialism, Hitler and his followers were marching on November 9, 1923, from a beer hall outside Munich into the city, when they ran afoul of the authorities who scattered them,

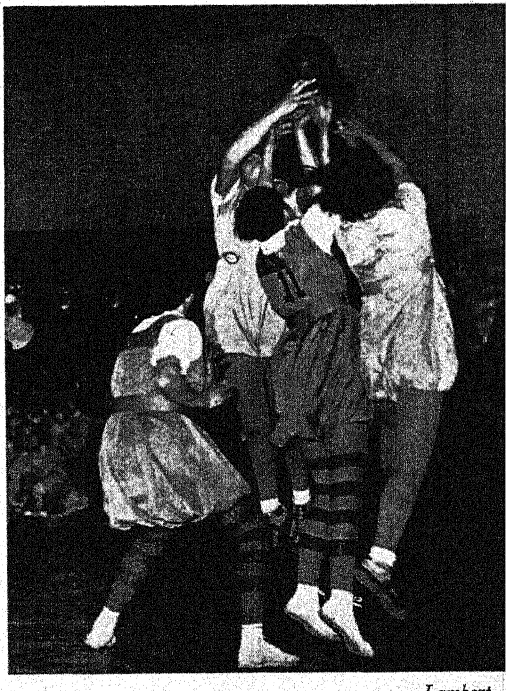
[1] CARLTON J. H. HAYES, ESSAYS ON NATIONALISM (New York: The Macmillan Company, 1926).



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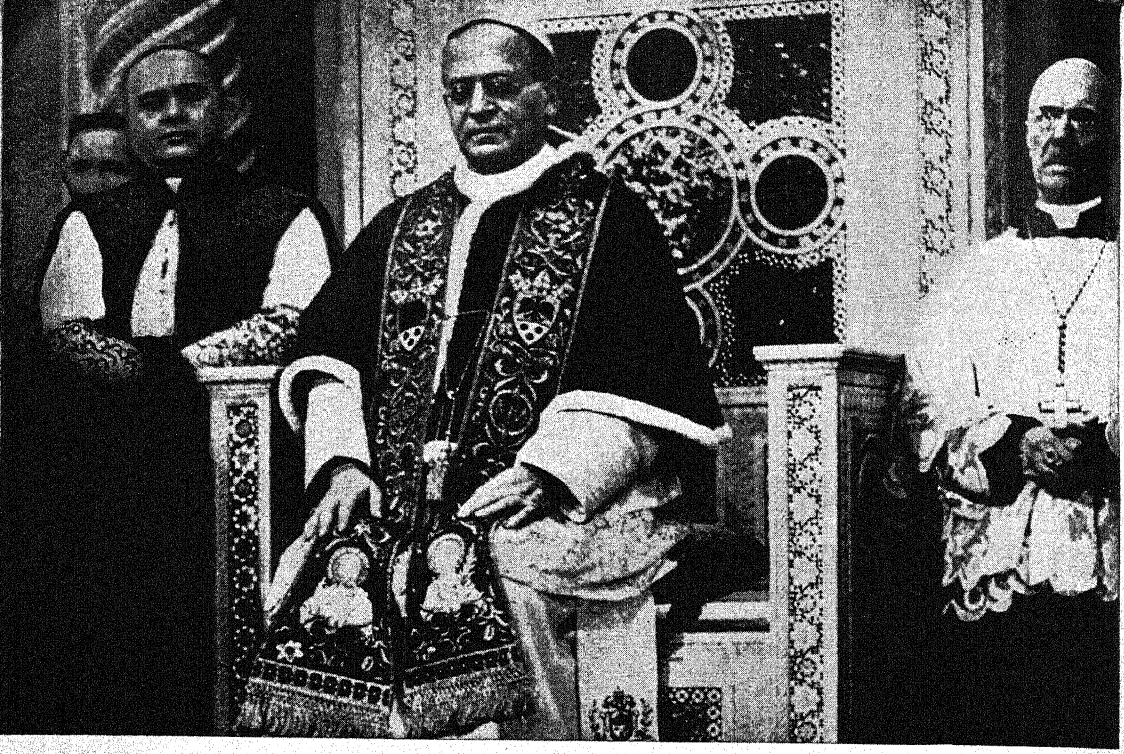


Ewing Galloway

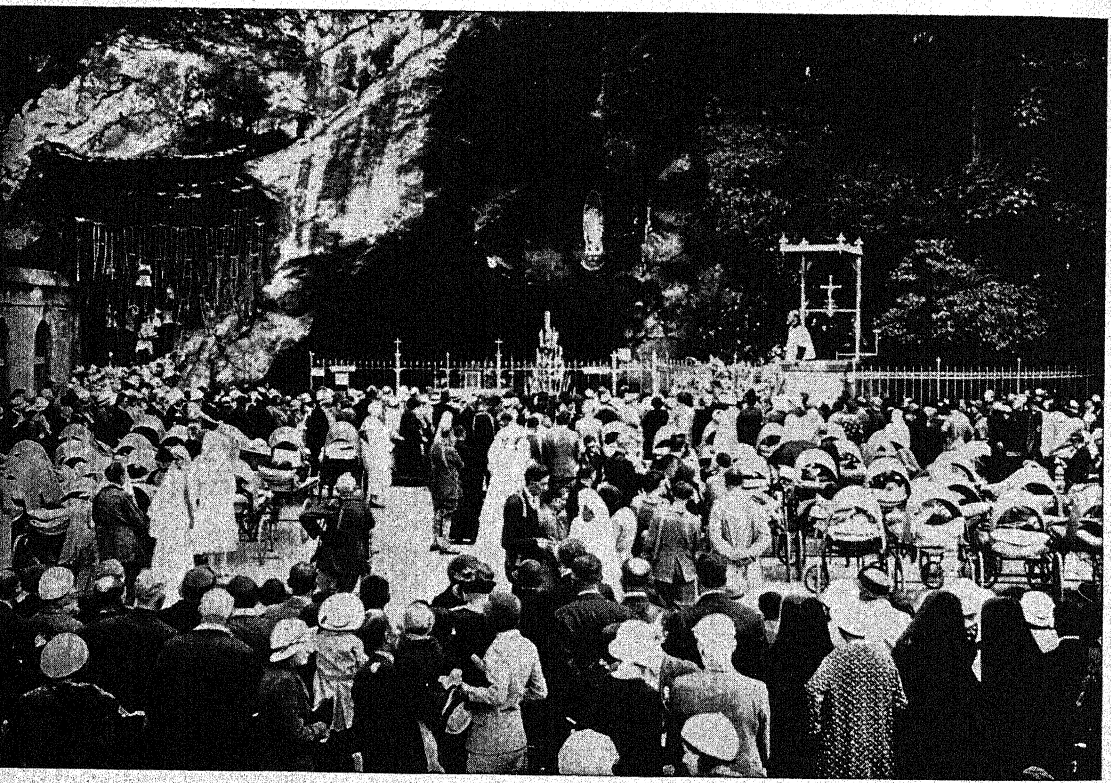


Lambert

PLATE 11. THE MANY FUNCTIONS OF RELIGION



Acme



killing sixteen. After National Socialism came into power in Germany under Hitler the bodies of these comrades were dug up and reburied in a central plaza in Munich, which became something of a shrine. Each year, on November ninth, a great pilgrimage of true followers including the greatest of the leaders was made to Munich, where an elaborate ceremonial was performed at the tomb of these early heroes of the cause. This pilgrimage was suggestive of pilgrimages to Jerusalem and to Rome.

These nationalisms become intolerant of wrongdoing and opposition, as is the practice of many religions. The treatment of heretics was very severe in the sixteenth and seventeenth centuries in Europe. The Communists in Russia fought the established religion during the early years of the Revolution. In Germany, Protestants and Catholics had their services patrolled, and their leaders were imprisoned by the National Socialists. The struggle is suggestive of the earlier antagonisms between the Lutherans and the Roman Church, and that between the Huguenots and Catholics which led to the bloody Saint Bartholomew's Day.

Nationalisms are, then, similar to religions. Each has a higher power toward which loyalty and reverence is required. Both have sacred writings, mythologies, theologies, rituals, ceremonies, and pilgrimages. But there are differences. Nationalism has no house for worship, nor any holy day like Sunday. Nor is the reverence in nationalism of any very mysterious nature. There is little, if any, concern with the unknown in nationalism as there is in religion. So there is room for those who do not wish to call nationalism a true religion, or even a religion at all. Nationalism, however, has become sufficiently powerful that the various religions may find it a staunch adversary in the future.

Once before nationalism rose to great heights, assumed the proportions of a religion, and opposed the constituted religious authorities.[1] This was during and following the French Revolution. It was proposed that the new religion of nationalism be called *La Patrie*. The revolutionists saw in it not only a regeneration of France, but of the human race. The Declaration of the Rights of Man and of the Citizen was called the national catechism. The new constitution was the holy writ. There were civic baptisms, civic marriages, and civic funerals. The great church of Saint Genevieve became the National Pantheon. Since 1793 nationalism has dropped back to smaller proportions in the life of the French people, but it left its mark on religion in France. The church

[1] CARLTON J. H. HAYES, *op. cit.*, chap. IV.

lost much of its power and influence because of this burst of nationalistic religion.

It is possible that the exaltation of nationalism in Germany and Italy and Russia in the nineteen-thirties was due to the influence of war, when patriotism was stepped up. In a less warlike period nationalism may recede. But the high development of nationalism may also leave its impress on religion in those countries. If so much loyalty and devotion and sacrifice is exacted by a totalitarian state, may not the loyalty and devotion to established religions be weakened, even though there is no clash on the overt opposition of state to organized bodies of religion? The state may replace the church somewhat in the hearts of the people. Whatever may be the results, one of the problems confronting the existing religions of today is the rise of nationalism.

SUMMARY

Beset by dangers and uncertainties, man longs for spiritual security. He wants at least to be able to account for the strange things that happen all about him. Since he cannot explain the mysteries of life in ordinary terms, he utilizes his imagination. And, as Goldenweiser so well puts it, "perhaps the most outstanding and certainly the most historically significant achievement of this faculty is supernaturalism."

Belief in supernatural power is elaborated into a religious organization. Ideas are developed respecting the nature of this power (*mana*), the methods of acquiring it, the superior beings who possess it, and the appropriate regard in which they are to be held. The religious complex is, moreover, tied up with the rest of human experience so that religion affects familial, economic, educational, governmental, recreational, and social activity. Indeed a distinguishing trait of early religion is its pervasiveness. With us today religion is often a limited and specialized experience.

Early religion is largely magical, consisting of attempts to control events by manipulating and coercing supernatural power. The leader in this activity is the shaman or medicine man. He may help a sick individual get well by ridding his body of an evil spirit; or in case the man is about to die, he may step outside and catch the good spirit as it is about to depart for the other world. The success of the shaman is due in part to his shrewdness. It is his business, too, to foretell the future, hence he can predict the death of a sick man instead of trying to cure him; and if the result does not follow of itself, he may induce it.

From these beginnings religious organization becomes enlarged. The spirit world takes more definite shape in the form of ghosts, spirits, and gods. Animism is developed more fully. For dealing with the spirit world, rituals are devised, such as sacrifice, the observance of commandments, and the performance of ceremonials. In agricultural societies, churches are established and a body of functionaries comes into existence. That is, religious leadership is enlarged, so that priests, shamans, and medicine men enjoy a division of labor. Among preliterate peoples with a highly developed material culture, as for instance the Inca of Peru, an elaborate religious organization is built up that touches life at every point. The Inca had religious festivals and sacrifices for every month of

the year, and for the different seasons, as well as for both individual and group crises.

Particularly important, then, are the ramifications of religion, which vary in different places. In some cultures, such as those of the ancient Hebrews and Romans, religion penetrated the home, the father being a sort of high priest to his family. Elsewhere, as in medieval Europe, the church became the government; or again, the church may become a great commercial organization. The temple-treasuries of Mesopotamia and Greece carried on extensive banking and exchange transactions. In certain cases the church becomes the fly-wheel of society, as among the American Negroes following emancipation.

These ramifications of religion are in striking contrast to recent developments in the west, which have been in the direction of a reduction in the non-religious functions of the religious institution. Whereas, for example, the church was largely responsible for higher education in the United States, many of the colleges having been established by different faiths, in recent years the trend has been for these institutions to sever their denominational connection. Likewise the church plays less of a part in government, medicine, art, and social work than formerly. This change leaves the church in a position to concentrate its effort more definitely on the purely religious function of helping man to feel secure in the universe.

Although science with its new insights and interpretations forces certain modifications in the forms of religious belief and practice, only the forms are changed and belief in divine purpose continues. The continuing need for an integrating force such as religion supplies is evidenced by the present vast amount of personal disorganization. But there is recognition also that in our complex society collective action is needed for the solution of social problems, hence church leaders are emphasizing social ethics as a supplement to individual ethics. Church leaders are also greatly concerned with the loss of church power through the multiplication of sects and denominations, and are seeking to build up a united front among the churches, to work for a common social program and to fight the growing threat of nationalism.

QUESTIONS FOR DISCUSSION

1. How far back in the history of culture do we find evidence of man's belief in supernatural powers? What is the significance of this?
2. How is magic connected with religion in primitive cultures? How do the two differ at present?
3. Is there any relation between the type of religious practice and the level of material culture of a people?
4. How does the state of culture affect the nature of a people's fantasies? Cite concrete illustrations from modern culture.
5. Why do not the Moi change their religion if it displeases them?
6. In what ways has the church adjusted itself to modern life? In what ways has it failed to do so? Is it desirable that the church keep pace with modern change?
7. What is the effect of scientific knowledge on religious ideology and practice?
8. How does the need for religion in modern times compare with that of times past?
9. What functions should the church exercise? Should it confine itself to religious activities or take on social, educational, and political functions as well?
10. What kind of ethics is the church likely to teach in the future?
11. What is the relation between denominationalism and our heterogeneous, rapidly changing culture?
12. May communism and nationalism be considered religions? Elaborate.

TOPICS FOR REPORTS

1. The quest for certainty.
2. The guardian spirit of the North American Indians.
3. Religion versus magic in modern American life.
4. The social significance of the Negro church in the United States.

5. Nationalism as a religion.
6. The personality of the religious leader in primitive society.
7. Recent discussions of the relation of science and religion.
8. Religion and mental hygiene.

SELECTED READINGS

BURTT, E. A., TYPES OF RELIGIOUS PHILOSOPHY. New York: Harper and Brothers, 1939.

An able exposition of seven major points of view in contemporary western religious philosophy, considered in the order of their origin: namely, Catholicism, Protestant Fundamentalism, the Religion of Science, Agnosticism, Ethical Idealism, Modernism, and Humanism. Attention is given to the social orientation and implications of each viewpoint.

DOUGLASS, H. PAUL, and EDMUND DE S. BRUNNER, THE PROTESTANT CHURCH AS A SOCIAL INSTITUTION. New York: Harper and Brothers, 1935.

A balanced and comprehensive report on the modern American Protestant Church, based largely on previous studies made by the Institute of Social and Religious Research, an agency organized in 1921 as an independent society for the scientific study of socio-religious phenomena. To date the Institute has published several scores of volumes on religious research.

FARIS, ELLSWORTH, THE NATURE OF HUMAN NATURE.

Chapter V, "THE SECT AND THE SECTARIAN," *shows how the sect illuminates the problem of the origin of new social institutions; chapter XXX,* "THE SOCIOLOGY OF RELIGIOUS STRIFE," *differentiates national, religious, and racial conflicts and advances the thesis that the latter is the most difficult type to solve.*

FRY, C. LUTHER, "CHANGES IN RELIGIOUS ORGANIZATIONS," chapter XX in RECENT SOCIAL TRENDS IN THE UNITED STATES.

Furnishes data on recent changes in a number of religious phenomena, such as organized religious agencies, religious attitudes and beliefs, church membership, wealth, and unity.

HAYES, CARLTON J. H., ESSAYS ON NATIONALISM. New York: The Macmillan Company, 1926.

Chapter IV, "NATIONALISM AS RELIGION?": *a convincing account of the similarities between the practices of religion and of nationalism; written before the rise of Lenin, Hitler, and Mussolini.*

JAMES, WILLIAM, VARIETIES OF RELIGIOUS EXPERIENCE. New York: Longmans, Green and Company, 1902.

A great collection of documents of religious experiences, collected many years ago, but valuable today as then.

LOWIE, ROBERT H., PRIMITIVE RELIGION. New York: Boni and Liveright, 1924.

A scientific and reliable account of the forms and organization of religion among preliterate peoples, but singularly defective in giving the reader any feeling for the spirit of religion.

MARTIN, EVERETT DEAN, THE MYSTERY OF RELIGION. New York: Harper and Brothers, 1924.

An interesting interpretation of the various phenomena of religion such as atonement, self-sacrifice, sense of guilt. The interpretation draws at times strongly from the writings of psychoanalysts. It imparts a sense of the understanding of religion, whether the interpretations are reliable or not.

RADIN, PAUL, PRIMITIVE RELIGION. New York: Viking Press, 1937.

An uneven book, with many theories as to the nature of early religions. The author has shown better than any other writer the economic factor in primitive religion.

WALLIS, WILSON D., RELIGION IN PRIMITIVE SOCIETY. New York: F. S. Crofts and Company, 1939.

A readable, well-balanced account of primitive religion with a special emphasis upon the social aspects, in which the author is successful in imparting to the reader something of the meaning of religion.

YOUNG, PAULINE V., THE PILGRIMS OF RUSSIAN-TOWN. Chicago: University of Chicago Press, 1932.

A colorful account and able sociological analysis of a religious sect, the Russian Molokans of Los Angeles. Valuable in showing the origins of the sect in the protests of a minority group against the established moral order, and the problems of accommodation faced by such a group.

XXII. THE FAMILY

THE FAMILY today seems to be a troubled institution. The divorce rate is high, and the number of separations is large. In big cities in the United States about one in twelve persons under forty-five or fifty years of age is living away from his or her mate. Families without children are numerous. In large urban centers every other family, approximately, is without a child living at home, and perhaps a fifth of the married women who reach forty-five years of age have never borne a child. This situation is a source of anxiety to many persons, because the home is the place where the personal and social virtues are developed. The type of citizen one becomes is related closely to the type of mother, father, and home life one has. What happens to so significant an institution as the family is of great concern to society.

The present status of the family is the end-result of a long historical process; the modern scene cannot be understood without some knowledge of what has gone before. Moreover, it is helpful to inquire how variable and flexible the family has been in earlier periods and in different cultures; such knowledge may throw some light on the probable future of the institution, suggesting the limits of its ability to change to meet changing conditions. A study of the family in the earliest hunting cultures, and what changes occurred in it as the material culture developed into our present civilization, will afford a better understanding of family life today and its possible changes in the future.

THE BEGINNINGS OF FAMILY ORGANIZATION

WHAT THE FAMILY IS

When we think of a family we picture it as a more or less durable association of husband and wife with or without children, or of a man or woman alone, with children. The sex and parental functions are distinctive of the family. They constitute the primary *raisons d'être* of the institution and are common to the family in all cultures. The primary personnel of the family consists of mates and their offspring.

The family, however, is not necessarily limited to these individuals and functions. It may be much larger and may include, for example, grandparents, relatives, in-laws, and grandchildren, all forming a unit which is sometimes called a household. The structure of the family is not fixed; it varies in different cultures, as will be shown below. Likewise the functions of the family are flexible. The family may do few or many things. In addition to the functions mentioned above, the family may provide economic services for its members, it may help to educate them, give them religious guidance, furnish recreation, protect them against dangers of various sorts, and provide affection and social intercourse. It is important in appraising the significance of the family in any culture to ascertain what functions are performed and to what extent they are exercised. The family may thus be interpreted in terms of its varying organization and functions.

THE EARLY FAMILY

The family is found in every hunting society known to us, no matter how simple its material culture. Unlike the state, church, or even village, the family is present everywhere among these simple peoples. It generally consists of a male, one or more females, and children, with perhaps a relative or so. The husband is a hunter, the wife prepares food, and the women and children help to gather wild vegetables, to dig roots or to pick berries.

What the family was like before culture was this far advanced is a matter of speculation. However, we know that a more or less durable union of male and female exists among the primates. The male, always larger than the female, often shows signs of jealousy and possessiveness, which may account in no small part for the stability of the union. Again, while the mother alone might be able to provide food for the offspring, no doubt the aid of the male is helpful. Besides getting food and caring for the young, the anthropoids help each other in fights, and the male "protects" the female against marauding males. However, various other group functions characteristic of a culture are not present, and the household does not consist of relatives, although occasionally an unattached individual joins the family group. Where the primates live in bands, the bands consist of several family groups that forage together for food, keeping generally out of one another's way, except for occasional fights over females.

The family organization of a baboon colony is reported as follows by Zuckerman: [1]

> A family group consists of a male overlord, his female or females, together with their young, and may sometimes include one or more "bachelors" or unmated males. The bachelors are not an essential element in the party, although they may be attached to it, according to my observations, for as long as a year . . . they appear to be held to the group mainly by their interest in the females, but it is possible that they are also attracted by the overlord. . . . One male, the biggest in the group, owned eight females, three had three each, three had two each, and there were five monogamous family parties. The owners of the more mature females appeared to be the more powerful males. Some of the unattached sexually mature males were bigger than some of those that were mated, and a few of them accompanied family parties in their movements. . . . A "bachelor" was not included in the largest family party.

The broad outlines of the history of the family do not suggest any great evolution such as we find in material culture, which moved from broken stones to elaborate engineering; or even such as we find in government, which grew from simple leadership to the great nationalistic state. The early family group seems to have many resemblances to the modern family in its small size and limited economic and social functions. Still, the family is not a static institution. Although there has been no evolution in a linear direction from the simple to the complex, the family has varied greatly in different cultures. Some of these variations may now be considered.

Variations in Family Organization

The simple, independent family

The most common form of the family among preliterates is much like our own, an organization built around the nucleus of husband and wife and offspring. Each family is an independent unit and functions apart from other units of the same sort. In some cases additional members, such as relatives, may be added to the family circle, but there is no formal connection of the simple biological family with any larger organization.

The stability of such a family is, however, limited in duration. It is formed at marriage and is dissolved at death. There is thus a disruption

[1] S. Zuckerman, The social life of monkeys and apes (New York: Harcourt, Brace and Company, 1932), pp. 225–26.

at this time of the economic and social functions, and the institution has to start all over again with the marriage of the young, who are more or less inexperienced. Where property is involved, some continuity is had by rules of inheritance. But on the whole a small group of father, mother, and children is not the most efficient unit for performing certain economic and social functions. An evidence of this today is the growth of factories and stores outside the family. The biological family, then, is not an effective organization for production from the point of view of continuity and from the point of view of the number of workers.

THE CONSANGUINE FAMILY ORGANIZATION

The biological family of parents and children is not the only form of family organization. Very common among primitive peoples is a family where the central core is the relations of blood kin, of brothers and sisters, or of parents and offspring. The bond between these seems almost stronger than that between mates. Where the husband comes to live with his wife's family, he is regarded as a bit of an outsider. The wife's brother continues to have great influence with her and gives her advice about how to rear her children. Relatives on the mother's side are counted far and wide, while the husband's relatives are not considered kin. It may be noted that the blood relationships have certain special elements of stability. The children have been brought up together since birth. They are a direct continuation of the same family and their number need not be limited to two. In other words, it is quite possible to think of the functioning family as organized around a center of blood ties, such as between brothers and sisters, or parent and children, rather than around husband and wife. Where the functioning group is based upon blood ties, it may be referred to as a consanguine family organization.[1]

There are, of course, marital groups in such a family, but they are subordinate to the blood group. The marital bond may be minimized to the point where one of the mates is not regarded as being related to the children. That is to say, a system of unilateral kinship generally obtains among primitives, descent being traced either through the mother's line or the father's, but not through both. A maternal consanguine family consists of a woman, her children of both sexes, the children of her daughters, of her daughters' daughters, and so on. The woman's husband does not belong to the group, but belongs instead to his mother's

[1] See RALPH LINTON, THE STUDY OF MAN (New York: D. Appleton-Century Company, 1936), chapter x.

family. Where descent is patrilineal, the consanguine family consists of a patriarch, his children, and the children of his male descendants through males.

The marital tie is minimized among preliterates by the common practice of having one of the mates take up residence at the home of the other's people. Where the husband goes to live with his wife's family, the system is known as matrilocal residence; its opposite is patrilocal residence. All cultures which trace descent through males are apparently patrilocal. If descent is traced through females, the residence may be either matrilocal or patrilocal. Probably somewhat more than one half of all preliterate societies are patrilocal, but the proportion is difficult to fix, for in some cases there may be a combination of practices or even a movement from one to the other.

The consanguine family is strong where the husband comes from another village to live with his spouse and her people. To appreciate the significance of such a matrilocal family system it should be observed that the means of travel and communication are poorly developed among primitive peoples, and that their communities have the characteristics of isolated places today. An individual is very close to his group where everybody not only knows him but knows everything about him. Under such a condition banishment is one of the worst possible punishments. There is no place to go except among an alien people who do not readily adopt strangers. When marriage occurs between members of two different villages, one of the persons is an outsider and his position in the household is much like that of a relative who comes to live with a married couple today; he becomes a part of the family but not the most essential part. In matrilocal marriages, the mother's brother sometimes bears a closer relation to the children than does the father, and it may be the uncle rather than the father who administers the punishment, if there be punishment to inflict. In some functioning households of primitive peoples the marital aspect of the family is not necessarily the most important factor.

EXOGAMY AND ENDOGAMY

But why is there among some peoples a prescription that they must marry outside their group — a practice known as exogamy? Its origin is not definitely known, but there are certain situations that make the system understandable. The practice of marrying outside the group is compatible with the prescription against incest which exists in every

culture. Incest is, however, variously defined by different peoples. The marriage of mother and son is universally prohibited; and with rare exceptions, the same is true of the union of father and daughter. In a few cases, as in ancient Egypt, Peru, and Maya, brothers and sisters have been required to marry, but this occurs mainly among members of the ruling class when the idea prevails that they are divine or when it is desired to keep the blood pure. Such prescription of marriage within a particular group, or endogamy, may exist along with exogamy, as may be seen in our own society today in the case of state laws which forbid the marriage of first cousins (exogamy), yet require marriage with someone of the same race (endogamy).

The taboo against marriage of close relatives is sometimes extended so far as to forbid the marriage of members of the same clan. It should be recalled that when the material culture is very simple, the groups are quite small, sometimes numbering no more than twenty or thirty persons, and comprise only a few families. Among these peoples the system of kinship reckoning is not the same as ours. Lowie [1] cites various systems of kinship reckoning:

> . . . in the Menomini family circle boys are not called "son" or "brother," but each is addressed by a word indicating the order of his birth. . . .
>
> In certain systems, blood-relatives are classed according to generation regardless of nearness of kinship and of their maternal or paternal affiliations. . . . [The Hawaiians] apply a single term, *makua*, to both parents and to all their parents' brothers and sisters, sex being distinguished only by qualifying words meaning "man" and "woman." All related individuals of one's generation are classed as brothers and sisters, certain distinctions being drawn according to the age of their parents relatively to that of one's own parents and also according to the speaker's sex, but none resulting from the differences in *nearness* of kinship. The children of all these brothers and sisters are classed with one's own children, and *their* children with one's grandchildren, while a single term embraces grandparents and all related members of their generation. This age-stratification of blood-relatives with disregard of differences as to father's or mother's side occurs not only in Hawaii, but also in New Zealand, Kusaie, the Gilbert and Marshall Islands.
>
> [The Zulu] man and woman call all the brother's and sister's children their sons and daughters without distinction, and the children of their father's sister are classed with one's brothers and sisters.

[1] ROBERT H. LOWIE, CULTURE AND ETHNOLOGY (New York: Douglas C. McMurtrie, 1917), pp. 102, 109–11. By permission of Peter Smith.

It is said, even, that in some cases it is not known that the father is instrumental in creating the baby. Therefore kinship may be extended to all the families who belong to the same group. As these bands grow larger the kinship terms persist, as does language in general, and all those in the enlarged group are designated as kin, although not necessarily related by blood. Such an expanded group constitutes a clan. Even today in China individuals who bear the same surname may not intermarry, although the original clan connection, if any, may be remote.

FORMS OF MARRIAGE

Most marriages the world over, even among preliterates, consist of one husband and one wife. That is to say, monogamy is practiced more largely than any other arrangement. But the reasons for this are not everywhere the same. A distinction must be made between the preference in a society for one system as against another, and the ability of individuals in that society to exercise that preference. Strictly speaking, monogamy is a system that enjoins the marriage of one male and one female; in such a system no other arrangements are sanctioned. But monogamy is permitted in societies where other systems are preferred. Where wives are bought, or where they are not of much economic value after marriage, most men cannot afford a number of wives. Thus, while the Koran permits a man to have four wives, few Mohammedans are able to avail themselves of this privilege. Monogamy becomes, of necessity, the most common arrangement even in a society which allows a husband to have more than one wife. Still, there are found among lower hunters a large number of strictly monogamous cultures, as in the Pygmy tribes, even more often perhaps than among preliterate people with a higher development of hunting or agriculture, like the Hopi Indians. There is no reason to think that monogamy was not a very early development.

While monogamy is the most widely practiced form among preliterates, the most widely favored system is polygyny, the marriage of more than one female to one male. That this should be so seems curious to some observers, who point out that it runs counter to the approximate equality in number of the sexes. The sex ratio, which is about 100 females to 100 males at birth, may be disturbed by various situations, however. One of these is the hazardous life among hunters. The loss of life among males at adolescence leads to a slight excess of women. Among a small group of central Eskimos, for instance, there was a sex ratio among children of 105 males to 100 females, but among adults there were only 92 males to

100 females.[1] In 1805, among 23,000 Plains Indians in America, there were only 44 males to 100 females.[2] War in these early cultures is not as a rule costly enough in human life to have much influence on the sex ratio.

While an excess of women would facilitate polygyny, it must not be thought that the system requires any such condition. As has repeatedly been shown, culture may distort what would seem to be a rational biological arrangement; in this case, monogamy. The strong men in a society do not necessarily respect the rights of the weaker. An extreme illustration of this is to be found in Australia, where older men appropriate many of the women of the community, forcing some of the younger men to go elsewhere for mates. It would seem that the natural desire of man for variety was asserting itself here, but this aspect is not of the greatest importance, since it is usually possible for primitives to enjoy an ample sex life without bearing the responsibilities of marriage. Additional wives are taken because they give a man prestige, much as do material possessions in our own society. The African kings had an unlimited number of wives. Wives are added, too, if they are economic assets. Polygyny is more prevalent on the higher economic levels where wives are very useful and where some men are richer than others.

Much more rare is the system of polyandry, the marriage of more than one male to one female. This plan is found among the Todas of southern India, where it takes either the fraternal or the non-fraternal form. In the first case, a group of brothers share a wife; in the second, the wife makes the rounds of the different settlements where her husbands live, spending a certain length of time with each. In the fraternal variety, if a child is born all the brothers may share the title of father, and the child will address them all by that name. In the other arrangement, some one husband will by an established ceremony be chosen as the child's legal father. It is interesting to note that, while biological paternity is not emphasized, legal or social paternity is.

It is easier to describe polyandry than to account for it. The system certainly runs counter to the fundamental tendency of the male to covet the exclusive possession of his mate. Among the Todas, polyandry is associated with female infanticide, which results in an excess of males, a

[1] FRANZ BOAS, "THE CENTRAL ESKIMO," SIXTH ANNUAL REPORT OF THE BUREAU OF ETHNOLOGY, 1884–85 (Washington: Government Printing Office, 1888), p. 426.

[2] CLARK WISSLER, "CHANGES IN POPULATION PROFILES AMONG THE NORTHERN PLAINS INDIANS," ANTHROPOLOGICAL PAPERS . . . (New York: The American Museum of Natural History, 1936), vol. XXXVI, part 1, p. 43.

reason which makes the system understandable. But it is doubtful if the practice of killing off a considerable number of female infants is the cause of the marriage arrangement. The Tibetans in the Himalayas also practice polyandry, but do not resort to infanticide. The chief factors responsible for polyandry would seem to be the extreme poverty of the people and the small economic utility of women in the culture.

Some writers mention group marriage as a fourth system, but it is doubtful if a real instance of it can be established. It may have existed at one time in the Marquesas Islands, but it is not practiced there now. Where it occurs it seems to be a temporary or transitional arrangement. The British government has lately sought to suppress female infanticide among the Todas, with the result that an equality in the numbers of the sexes is being established. Consequently brothers may now take collectively a number of wives. But this would seem to be a makeshift arrangement pending the completion of the process of readjustment to new conditions. Group marriage, in the very nature of the case, offers no real advantage.

Group marriage is to be distinguished from promiscuity, for it proceeds under community sanction and control. Sexual license among married preliterates is seldom found in any disorganized sense, although it is quite common among young unmarried persons. Wife-lending by agreement, or exchange of partners, is sometimes allowed, but such practices are not disruptive forces and occur usually under special conditions. Even where variety and experimentation are permitted, there is an orderliness of family life.

THE STATUS OF WOMEN

An excess of women and polygyny may mean an inferior position of women in the family, but not necessarily so. Indeed, a man's first wife may request him to take a second wife to help with the work. Also in polygynous families the wives may band together in an argument with the husband and thus lend strength to their position.

The fact that a man marries to get more labor and that there is a practice of purchasing a wife suggests the idea that women may be considered as property. Such is hardly the case, however, for though wives may be bought, they are never sold. Wife purchase is not quite the same thing as a horse trade, but is more closely related to the system of gifts. In a primitive culture a father may get property when a daughter marries, but he may give property when his son marries. Property considerations

often enter into marriage, especially where the family performs economic functions of magnitude. The whole system affects also the stability of marriage, since in certain cases of separation there may be a return of property. Marriage is more stable where there are such property considerations. Even today in the United States and western Europe marriage often involves gifts, dowries, and property settlements.

The position of women in families usually depends to a considerable extent on the economic functions they perform. In a horticultural society the work is in good part done by the women and their status is relatively high. However, in herding cattle or in dealing with large animals, domesticated or wild, men have a very essential economic assignment, and their position is as a rule relatively higher than that of women. The husband is more likely to go to live with his wife's people in a hoe culture, while a woman is more likely to live with her husband's people in a cattle culture. These correlations are not perfect, for various other factors may modify such a relationship between cultural traits in a given area. Moreover, it should be remembered that there is considerable difference in theory and practice regarding woman's rank. It is well to note that theory is often an idealized statement, and that in reality there is in every society a great deal of individual variation. Some women have more dominant personalities than men, as truly in preliterate culture as in modern, regardless of whether in theory sovereignty rests with the male.

DIVORCE IN PRIMITIVE CULTURE

Among preliterates there is considerable variation in the degree of marital stability. Some of the simpler hunting peoples, as for instance the Veddas of Ceylon, do not allow divorce at all. In general, however, marriage is more flexible, and separation and remarriage are permitted. When divorce is frequent, the breaking and forming of new families is more likely to occur among the younger adults. No statistics have been collected on this point, but ethnological field workers observe more stable marital unions among the older families in a culture where divorce may be common among the younger members. The divorce procedure itself is likely to be very simple. A Zuni wife who no longer wishes to keep her husband indicates her decision by placing his personal belongings at the entrance of the house; when he returns from work and sees his things, he takes the cue and returns to his parents' home. In the case of a consanguine family, like that of the Zuni, divorce is not serious in its effects on the children, since the larger family organization remains intact and the

children continue to have the influence and association of the other adult members of the group. For this reason and others, divorce is probably more common among preliterates than it is in modern society. If a husband is lazy and will not support his family, the community will not object to his wife's separating from him; such a man may find it difficult to contract another marriage. While divorce is made easy, it is not encouraged, for divorce always disturbs some important family functions. The more numerous and significant the social and economic functions of the family, the more serious becomes the disruption of marriage.

The Family in the Household Economy

The decline of the consanguine family

The consanguine family and the clan tended to break up in the course of time as the local group became larger and as better methods of transportation were adopted. As plow culture replaced hoe culture and cattle were kept on the farm, the rôle of the husband became quite important in the family economy and he seldom went to live at the home of his bride. Mates were now chosen more often from among the boys and girls of the same community. The young couple set up a home in the same village from which they both came, or the bride went to live in the home of her husband. The family took on the pattern found in historical Europe and colonial America. The consanguine family tended to disappear, especially in the western world, and the conjugal family became the predominant type.

The increased prominence of the economic functions of the family

Under the plow and cattle culture the economic functions of production seem to have been suited fairly well to the conjugal family. The system gave rise to a highly developed household economy which existed in Europe through the Middle Ages into the nineteenth century. The same type of family is also found widely distributed in Asia. This household economy was developed chiefly in villages around which agriculture was practiced, or in the open country where the farms were scattered, for only a very small percentage of the population lived in cities. Most of the economic functions had been exercised by the family during the period of the hunting cultures and also in the horticultural period, but the standard of living was not very high. With the advent of the plow and the domestication of cattle the various handicrafts became much more highly

developed, and the economic functions assumed an even more important rôle in family organization. Under the household economy the producers were the consumers of their own produce, buying from other producers only a few things such as metal wares, swords, lances, gunpowder, silks, glass, and other luxuries. Such things as the grinding of grain, preparation of soap, molding of pottery, fabrication of leather, construction of furniture, and concoction of medicines were done at the homestead by members of the household. These families were thus largely self-supporting.

In developing a variety of important economic activities, the household had become a significant business enterprise. The wife was like a business partner and if she was industrious, thrifty, and a good manager, a man would be loath to lose such an economic asset. It might be difficult to secure another, and it was almost impossible for a man to run a household without the help of a woman. If a wife were put aside by her husband, she would return to her family or marry again, for there were no occupations for her to follow outside the family organization. The effect of the exercise of these economic functions was to make the marital relationship stable.

THE CORRELATION OF THE SIZE OF FAMILY AND SIZE OF ECONOMIC UNIT

It is natural to think of a farm as being run by a family. The size of the farm is very well fitted to the size of the family. If the size of the family determined the size of the farm, there could never be a very great inequality in the distribution of wealth. But there are ways whereby a wealthy farmer can have more land than a single family can cultivate. One way is to rent land to tenants, another is to own slaves. In the Middle Ages, the rich lord had serfs. Nowadays a farmer hires labor and acquires more machines. These different social arrangements call for some inventions, such as serfdom, slavery, or wage systems. Failing these, or in company with them, the family tries to stretch its size to enable it to till more land. This is true to a certain extent for the sharecropper in the cotton belt of the South today. A large number of children is the most natural way to achieve this result. Abraham, a rich farmer in Biblical times, was in favor of large families. But the family may also be augmented by keeping the married sons at home and bringing in daughters-in-law, and even their relatives. The family may expand laterally, which is the custom in China. In Europe and America, we are more familiar with the vertical expansion, grandparents, parents,

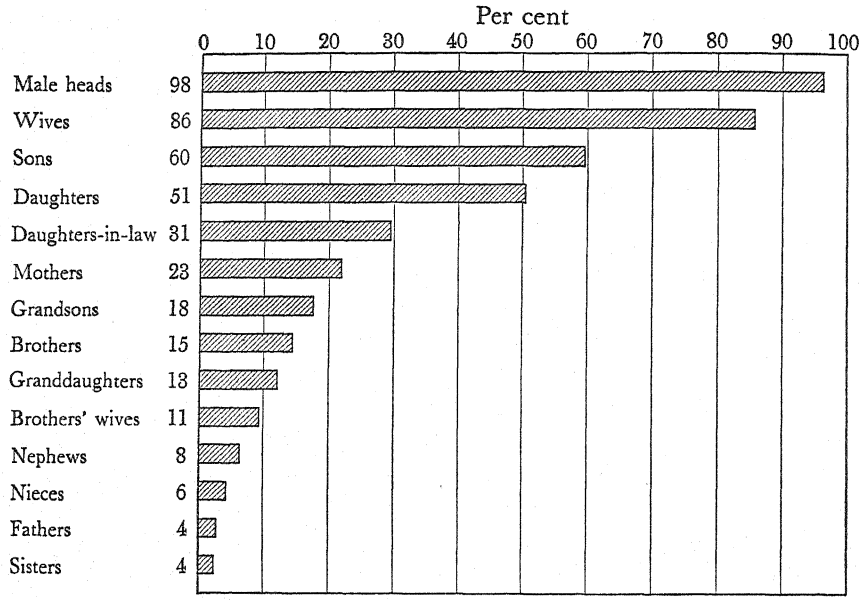


FIGURE 121. COMPOSITION OF CHINESE RURAL FAMILIES

The proportion of all families having, as part of the household, certain specified relatives of the male head (for 2640 families in seven Chinese provinces, 1921–25). Where the family is still in large part the unit of economic production, there is often a great demand for the kin to remain within the household. The Chinese measure their families laterally as well as vertically. From BUCK, CHINESE FARM ECONOMY (*University of Chicago Press*).

children, grandchildren, and great grandchildren, referred to in ancient law as the five-generation kindred.

Figure 121 shows how the kin are kept in the family in rural China. These data are based on 2640 farm families in seven different provinces. The average size of the family is 5.67 persons, but there are some very large families. In the sample, 49 families had 11 persons each; 22 had 13; 18 had 14. There was one family with 27 persons; one with 28; and one with 29. How the size of the family and the size of the farm are correlated is shown by Figure 122 based on 217 families in one province of China.

THE SUBORDINATE RÔLE OF AFFECTION IN THE CHOICE OF A MATE

In the household economy, contracting a marriage meant an emphasis on its economic aspects, that is, on property settlements and on the work habits and skills of the prospective mates. A man looked for a good housekeeper and a woman for a capable provider.

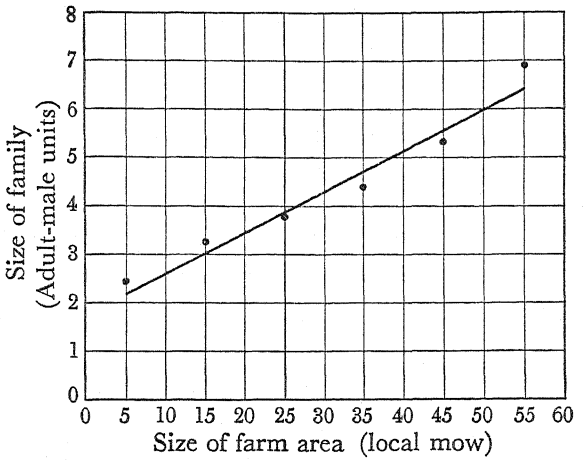


FIGURE 122. RELATION OF SIZE OF FARM AND SIZE OF FAMILY

Where wealth is measured in farm land, one way of obtaining the necessary labor is to increase the size of the family. Note the remarkably close adjustment of size of farm to size of family in this particular locality in China. From BUCK, CHINESE FARM ECONOMY *(University of Chicago Press).*

The fact that a man would choose a bride primarily on the basis of economic factors seems strange in a day when romantic love is taught by the movies and the pulp magazines to be the sole basis for the choice of a mate. For an agricultural handicraft economy such as existed in Biblical times, the virtues of a good wife are set forth in the following chapter from the Book of Proverbs: [1]

> Who can find a virtuous woman? for her price is far above rubies. . . .
> She seeketh wool, and flax, and worketh willingly with her hands.
> She is like the merchants' ships; she bringeth her food from afar.
> She riseth also while it is yet night, and giveth meat to her household, and a portion to her maidens.
> She considereth a field, and buyeth it: with the fruit of her hands she planteth a vineyard.
> She girdeth her loins with strength, and strengtheneth her arms.
> She perceiveth that her merchandise is good: her candle goeth not out by night.
> She layeth her hands to the spindle, and her hands hold the distaff.
> She stretcheth out her hand to the poor; yea, she reacheth forth her hands to the needy.

[1] PROVERBS 31:10–31.

She is not afraid of the snow for her household: for all her household are clothed with scarlet.

She maketh herself coverings of tapestry; her clothing is silk and purple.

Her husband is known at the gates, when he sitteth among the elders of the land.

She maketh fine linen, and selleth it; and delivereth girdles unto the merchant.

Strength and honor are her clothing; and she shall rejoice in time to come.

She openeth her mouth with wisdom; and in her tongue is the law of kindness.

She looketh well to the ways of her household, and eateth not the bread of idleness.

Her children arise up, and call her blessed; her husband also, and he praiseth her. . . .

A good marriage was thought to be one in which the capabilities of the young couple were high, rather than one where the love element was strong. While love was regarded as a desirable factor, it was considered not important enough to be the sole basis for marriage. It was assumed that after marriage affection and congeniality would develop to the degree that they are found in later married life in marriages contracted on the basis of romance. Where marriages were arranged by parents, however, the wishes of the young pair were usually ascertained and respected.

While polygamy does not seem to be incompatible with such a system of marriage, and indeed might have been an economic asset, monogamy became more prevalent in agricultural families, and in great areas polygamy disappeared. The blood of the mother was considered equal to that of the father in creating the child, and kinship was reckoned on both sides. Recently when the habit of using two names developed, the surname was taken from the father.

THE SUBORDINATION OF THE INDIVIDUAL IN THE FAMILY

When families are centers of affection between mates, parents, and children; when they are the greatest agency in society for the economic functions; and where families become attached to so stable a property as land, it seems natural that the family reputation should be very significant in determining status. The family name becomes important for business and for property arrangements, and wealth is associated with the

family and household rather than with the individual. The belief in the biological inheritance of social gifts and graces is another factor that tends to accentuate the family name. The status of the family may become so important that it overshadows the individual, who tends to be identified as some family's son or daughter, not as a personality in his or her own right.

THE HOME AS THE CENTRAL SOCIAL UNIT

Another observation concerns the importance of family life itself in agricultural societies. The villages in which most families lived were small, and there were few other houses than those occupied by families. Accordingly, the home tended to become the center of various kinds of activities: social, educational, recreational, and even religious. Churches were sometimes built, but there were no factories, stores, or offices. Only occasionally was there a clubhouse. By comparison with these other agencies the home ranked as a very important institution. While community undertakings, ceremonies, and holidays might compete with the activities centered in the home, even then the participation was usually on a family rather than on an individual basis.

The Modern Urban Family

As villages on the water highways grew into cities, the situation was not quite the same for the family. The city family was not identified with the land and subsistence production, as was the agricultural family. The city family tended to specialize in such undertakings as blacksmithing, making wheels, and weaving cloth. There was need for labor in such undertakings, but not so much for family labor as for individual labor. The system of apprenticeship enabled a family to draw young labor from other families. Later, wages were paid. The work was done in the household; the wife's duties were still housekeeping. The early city family was based upon the agricultural family with some modifications.

THE TRANSFER OF ECONOMIC PRODUCTION FROM THE HOME

Industrial organization eventually outgrew the family. The trend was in this direction as the inventions used in handicrafts manufacture multiplied and the use of windmills increased. But with cheaper iron and steel, and with the use of steam as a source of power applied to tools, more space was needed and more workers were required than were to be found

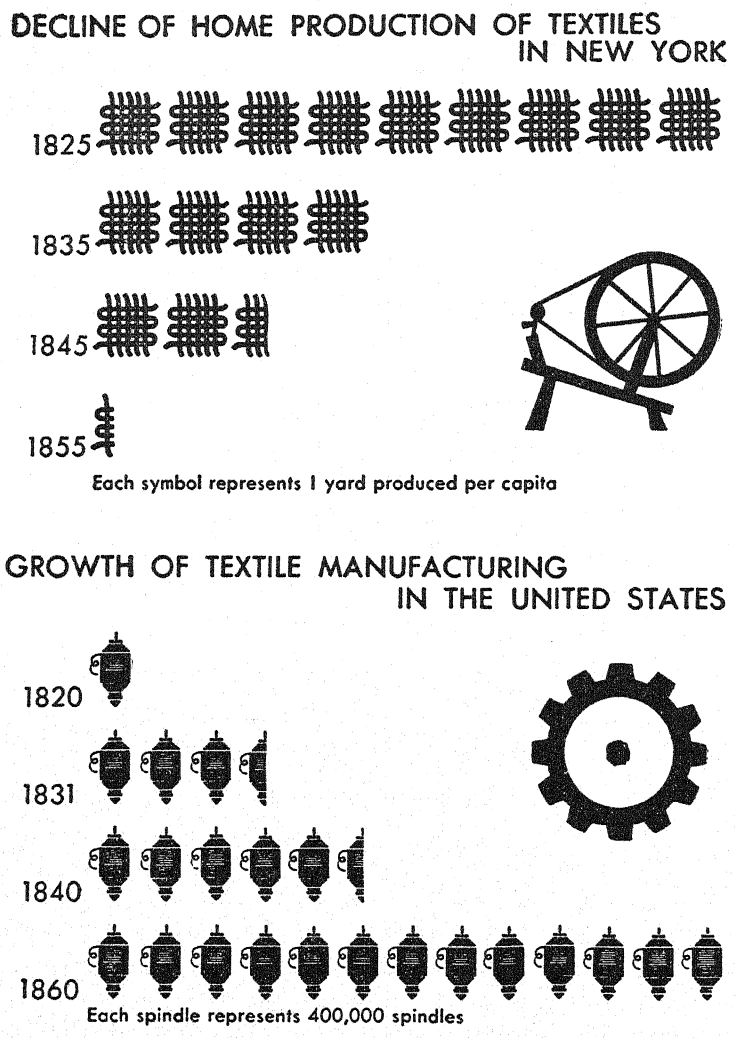


FIGURE 123. ECONOMIC PRODUCTION LEAVES THE HOME

The departure of economic production from the family has led to the growth of cities, the proliferation of complex economic institutions and a socialistic trend in government. From CASNER, GARNER, GABRIEL, THE RISE OF AMERICAN DEMOCRACY *(New York: Harcourt, Brace and Company). Courtesy of Pictorial Statistics, Inc.*

in the household. The steam boiler was too big for the home and the power generated required more space for the machinery. The factory instead of the homestead became the unit of production. The factory was too large to be manned by even a very large family. Steam was

first applied to spinning and weaving. But even before that, many types of production had left the average family, such as the tanning of leather, furniture-making, and the fabrication of cooking utensils and work tools of metals.

The process of the transfer of economic functions from the urban family to outside agencies has gone quite far in the past century and has left now chiefly cooking, the care of the house, laundering, and some sewing in the urban family. Even portions of the latter functions have been transferred, as for instance baking of bread to the bakery, cooking of lunches to restaurants and soda fountains, some laundering to outside laundries, and much sewing to various types of factories. The transfer process is not yet finished. Men's functions were among the first to leave the homestead as farming was given up. Women's more varied household duties have been transferred more slowly.

In the agricultural family the process has not gone so far. The extent to which economic functions are retained here may be measured by the amount of subsistence farming which is done. Where the money crop is large, more goods are bought that are produced elsewhere, presumably for the most part in factories and similar establishments.

THE REDUCTION IN THE SIZE OF THE FAMILY

One important result of this change has been a diminution in the size of the household. The family is now shaped more closely than ever before around the marital pair. The economic activities of the family no longer require the assistance of relatives and married children, hence there is no longer any need for their presence in the household. In urban communities the proportion of individuals not living in any family is large. The number of individuals living alone is about eight per cent of the total number of families in the United States. On the other hand, in only about three or four per cent of the families is there another family of kin living with them.

Moreover, the natural biological family itself is contracting in size. The diffusion of the knowledge of contraception has placed the bearing of children at the discretion of the married couple as never before. There seems to have been some knowledge of abortion here and there among primitive peoples, and perhaps some notion of birth control, but it probably was of no significance statistically. The regulation of population by female infanticide was known over widespread areas, and the custom reduced the size of the family even further than it was reduced by the

transfer of the economic functions. The average size (median) of household in urban regions in the United States is 3.26 persons. In rural farm regions where birth control is not practiced so extensively as in cities the average size is 4.02 persons. The present urban family is small in contrast to the economic consanguine family, or the later economic family of recent agricultural times.

THE PROMINENCE OF THE AFFECTIONAL FUNCTION

With the parental function being reduced by birth control, the time spent in rearing children is little. About fifty per cent of modern urban families in the United States have no children living at home. Many of the economic functions have been transferred to non-family establishments so that the economic functions left are few. The same is, of course, true of the educational, religious, recreational, and protective functions; the prevalence of schools, churches, governments, and commercial recreational agencies attests to this. As a consequence many families have as their main function that of providing affection between the mates.

In the light of the foregoing, it is to be expected that in marriage today the affectional element would be emphasized to the extreme. No doubt the romantic side is emphasized also because of the postponement of marriage by many young men and women in the cities to a point beyond that found among primitive peoples generally. The fact that the cultural age for marriage occurs much later than the biological age serves to stimulate the love emphasis. It seems to be agreed that nowhere in the world has romantic love been so emphasized in starting marriages as in the United States today.

In addition to stressing the personality relationships of husband and wife, the small family system emphasizes the rearing of the young children. To be sure, the educational function of the family has, in part, been shifted to the state through the creation of the public schools and the passage of compulsory school attendance laws. Yet the very early years are spent almost exclusively in the family, and even when the children are of school age the family protectorate over them still continues.

The reduction in the size of the family means a smaller proportion of middle children in the population and an increase in the percentages of oldest and only children. The reduction in the number of brothers and sisters in a family means also that children will spend more time with adults and less with playmates, with attendant consequences for personality unless counteracting measures are taken. As modern research is

showing that the personality of the child is dependent upon the way the early years are spent, the responsibility placed on the parents seems to be very great. Clearly the personality functions of the modern family are among its most important ones.

These intimate functions are seriously affected by the mobility of the population. The average family in a very large city moves approximately every two years, and tenant farmers also move quite frequently. This means that parents and children must find new primary groups. Frequent moving de-groups the members of the family somewhat, so that they do not seem to belong to any group. This condition, while of some consequence to the parents, is even more serious for the uprooted children. Indeed, in some cases children are deprived of vital social contacts not only in the community but in their own homes as well. The occupational situation of many fathers is such as to require, if not actual travel away from home, then at least a good deal of commuting between home and place of employment. In such families, the children, especially when they are little, are often denied much contact with their fathers.

RÔLES IN THE MODERN FAMILY

The new conditions have also worked to change the status of husband and wife in the marriage relationship. In an agricultural society, as was pointed out, the family is a business organization. Like all businesses, the farm family needs a head. Man generally assumes the leadership, since his services are more important. Besides, the economic leadership of women is always disturbed by the fact that they bear and rear the children. In the modern city, on the other hand, the economic functions of the family are less significant and, accordingly, the need for leadership and control is not so great. Wives may work outside the home for pay. In 1940 in the United States about one in seven married women was so employed. Even more important, perhaps, the present emphasis on affection as the chief basis for marriage means that companionship is the principal benefit sought from the union. Companionship presupposes an essential equality between individuals. In a word, the modern urban family tends to be equalitarian.

In spite of the persistent lag in the laws discriminating against women, there has been a substantial modification of the former patriarchal control. A century ago, a married woman could not sue alone; she could not execute a deed without the concurrence of her husband. In many respects she lost at marriage the power of personal independence and

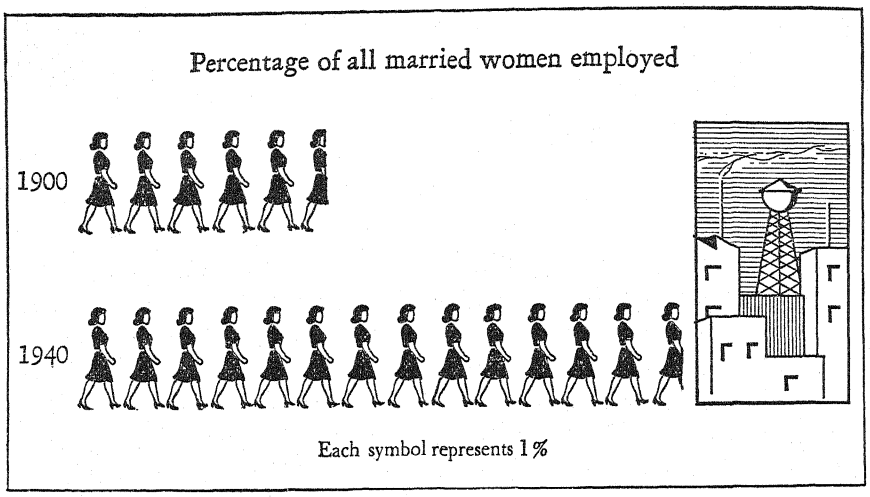


FIGURE 124. CHANGING RÔLES IN MODERN SOCIETY

The percentage of married women in the United States gainfully employed, 1900–40. Woman's place was once in the home, but it is rapidly becoming less so, with important consequences for the personality of women, sex mores, education, and citizenship.

altogether that of separate action in legal matters. She lost the entire control of her personal property as long as the marriage continued. The personal property of the wife went to her husband at marriage to dispose of as he pleased. He also had the right to control her real property and to take the profit from it. Today in thirty-one states of the United States husbands and wives have an equal interest in each other's real estate. An unmarried woman can make a contract in twenty-two states. In thirty-nine states the right of fathers to sole guardianship of their children has been changed. Women have the vote, serve on juries, have protection against exploitation in industries. They can go to college and some can become lawyers and doctors. They have associations of their own. The family was the unit under the old system and man was the head. Now the members of the family tend to be individuals before the law, and custom is giving women many rights.

MODERN DIVORCE

These changes in the family influence the strength of the tie uniting the adult members of the family. Formerly the family was held together by many different bonds, economic, religious, protective, and the like. At present, the chief remaining bond is affection. One bond does not hold

as firmly as several. With the weakened bonds, the family falls apart more often and there is more divorce. The affectional bond is often very strong at the inception of marriage, but it does not always endure. When it breaks, married couples naturally wish to separate from each other. Yet ordinary observation suggests that all disappointed couples do not resort to such drastic action. Some remain together in spite of their difficulty. In a word, while dissatisfaction with marriage is obviously the fundamental cause of separation and divorce, the process is facilitated or hindered by other factors, several of which may be indicated.

Two such factors affecting the stability of marriage are the age, and the number of children, of the married pair. Most marital disruption occurs among those who have been wed a relatively short time. Two thirds of all divorces go to those who have been married less than ten years. This is to be expected, since youth is the mating time, and the chances of remarriage are greater, especially for the female. Married couples are held together by children. It is interesting to learn that about two thirds of the divorces are granted to childless couples. The number of childless couples represents probably around one fifth of the married population; hence, two thirds of the divorces come from perhaps less than one fifth of all families. About twenty per cent of the divorces come from families with only one child.[1] Some eighty-five per cent of all divorces come from a small section of families, those with either no children or only one child. In a word, affection and responsibility for children tend to hold the family together.

Another factor affecting the stability of marriage is the type of community in which the family lives. In cities the divorce rate is much higher than in rural regions. This condition is due in part to the fact that in small places the inhabitants are personally acquainted and see each other face to face often during the week. The opportunity for the opinion of others to play a part in regulating a person's conduct is much greater in such a primary group than in a city, where there is much more chance of anonymity and freedom from the social pressure that centers around Main Street. Moreover, on farms women are an economic asset, adding to the production, and their economic value is utilizable directly in the family. Marriage is more prevalent in farming districts and divorce less common. Though the city woman who works for pay outside the home is an economic asset as truly as is the farmer's wife, her

[1] ALFRED CAHEN, STATISTICAL ANALYSIS OF AMERICAN DIVORCE (New York: Columbia University Press, 1932), p. 115.

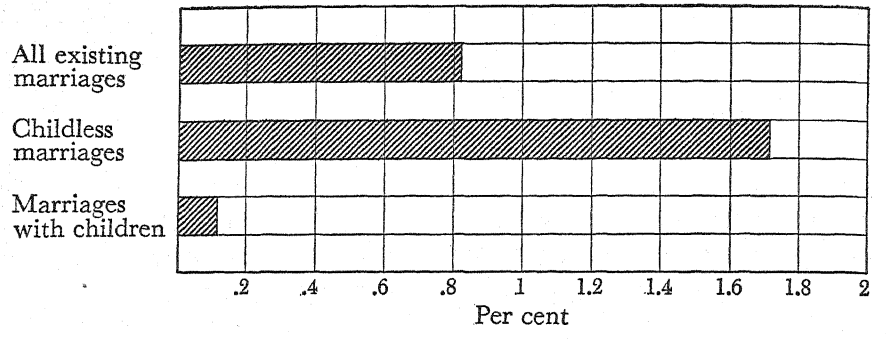


FIGURE 125. PER CENT OF MARRIAGES EXISTING IN 1930 IN THE UNITED STATES ENDING IN DIVORCE IN THAT YEAR

The probability in any one year of a marriage without children under 21 living at home ending in divorce is about 17 times as great as that for marriages with children. Children, apparently, are a strong tie in holding the family together. Divorce is probably a more serious matter in a family that has children. Material on divorces from the U.S. Bureau of the Census. Data on sizes of families are from unpublished Census materials in the authors' possession.

economic activity is independent of the family life, and her economic situation may even favor separation.

Finally, mention may be made of religion as a factor influencing the stability of the family. Some religions permit separation but not divorce, forbidding a second marriage. Other churches deplore the breaking of the marriage tie, but condone it under a variety of circumstances. The stability of marriage is often affected by the sensitiveness of the individuals to the opinion of their church. The church attitude itself, however, is affected by the various social forces that are changing the family.

PERSONALITY FUNCTIONS OF THE MODERN FAMILY

As has been suggested, the remaining functions of the family are chiefly personality functions. These are of two types. One has to do with the relations of husbands and wives and the other with the relations of parents and children. There is at present much concern with the questions of how husbands and wives get along with each other, and of how parents affect the personality of their young. These relationships are further described by saying that the concern of mates with each other is one of happiness, and the concern of parents with children is education in its broadest sense. This statement unduly simplifies the analysis, for the family still has some economic, religious, protective, and recreational functions. But the statement does correctly point the direction in which

the trends have been moving. The major problems of the present-day family are (1) to make happy husbands and wives, and (2) to produce wise parents who will provide a happy and wholesome childhood for their young.

THE PREVALENCE OF HAPPY MARRIAGES

Several attempts have been made to measure the incidence of marital happiness. One method consists in asking married persons how happy they are; another in getting ratings from close friends of the married couples. All such inquiries show a large percentage reporting themselves as happy, only a small percentage as unhappy. For instance, in a study by Burgess and Cottrell,[1] only about one fifth of the marriages are reported as unhappy or very unhappy, while about two thirds are said to be happy or very happy. The findings for 526 couples are as follows:

TABLE 32. HAPPINESS OF MARRIAGES

very happy	43 per cent
happy	21 per cent
average	14 per cent
unhappy	14 per cent
very unhappy	8 per cent

In a similar study, Terman [2] gives much the same distribution. Terman introduced two more terms in his ratings: extraordinarily happy, and ex-

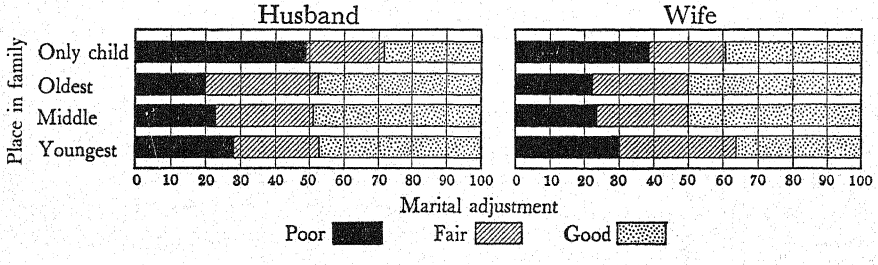


FIGURE 126. MARITAL ADJUSTMENT AND ORDER OF BIRTH

Only children seem to have, on the average, the largest number of poor adjustments in marriage and the smallest number of good adjustments. These results are probably not due to heredity, but are due to culture and hence are not inevitable. From BURGESS *and* COTTRELL, PREDICTING SUCCESS OR FAILURE IN MARRIAGE (*New York: Prentice-Hall, 1939*), *p. 107.*

[1] ERNEST W. BURGESS and LEONARD S. COTTRELL, JR., PREDICTING SUCCESS OR FAILURE IN MARRIAGE, p. 34.

[2] LEWIS M. TERMAN, PSYCHOLOGICAL FACTORS IN MARITAL HAPPINESS (New York: McGraw-Hill Book Company, 1938).

tremely unhappy. It is interesting to note that 30 per cent report themselves as extraordinarily happy and less than one per cent as extremely unhappy.

Such findings are commonly criticized as being the statistics of reported opinions and not necessarily of happiness and unhappiness. Burgess and Cottrell tried to get around this objection by using indices of happiness such as agreement on finances and demonstration of affection. The reports on a long list of such behavior items were then combined into a marital adjustment score. These scores show the couples to be distributed according to degree of marital happiness much as they are on the basis of their own opinions. The distribution on adjustment scores for the same couples whose own ratings are reported in the preceding paragraph is as follows: [1]

TABLE 33. ADJUSTMENT SCORES OF MARITAL HAPPINESS

160–199 points	43 per cent
120–159 points	30 per cent
80–119 points	16 per cent
40–79 points	10 per cent
0–39 points	1 per cent

It is interesting to have statistics show that the great majority of marriages are happy. But how is this to be reconciled with the fact that something like 1 in 6 marriages will end in divorce if social conditions remain as they now are? If the number of separations and desertions were known and included, the proportion of broken marriages would be much larger. Besides, many a couple remains together through a lifetime despite an unhappy marriage. It may be that Burgess and Cottrell, Terman, and the others have a sample of families selected for happiness.[2] Another possible explanation is that when many marriages become unhappy they stay so a relatively short time before being broken by divorce or separation, while happiness is of a longer duration. Hence, a sample taken at any one time would show a much greater proportion of happiness than would be the case if the marriages were followed over a longer period of time.

FACTORS IN MARRIED LIFE PRODUCING UNHAPPINESS

The folklore on unhappiness in marriage rates mothers-in-law and "bad habits" as important sources of difficulty. Marital advisers usually coun-

[1] Adapted from BURGESS and COTTRELL, *op. cit.*, p. 69.

[2] This is acknowledged by Terman, *op. cit.*, p. 64. Selection is unavoidable whenever, as in this study, data are secured on the basis of voluntary participation. The unhappily married are probably less inclined to co-operate in such a study than are the happily married.

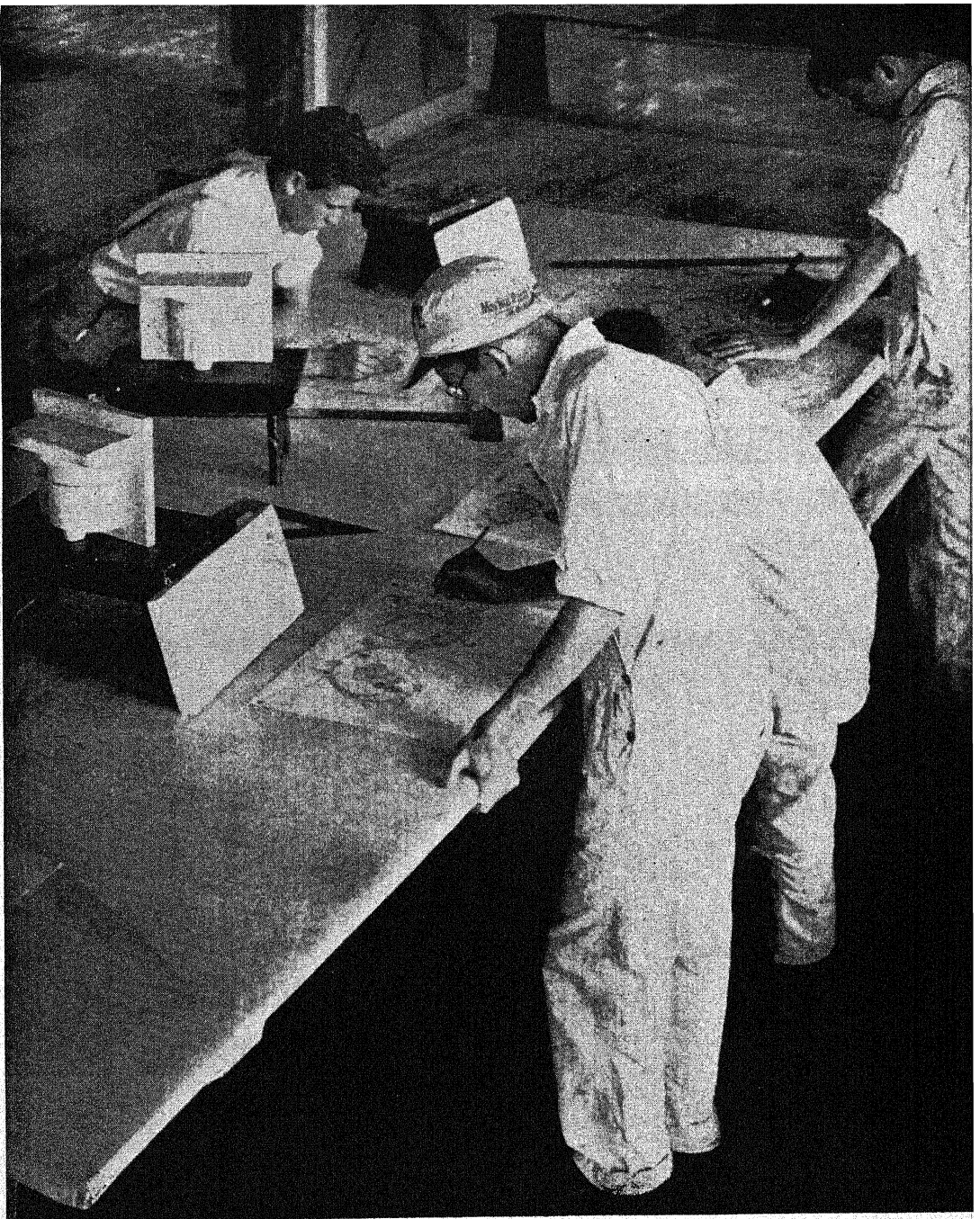
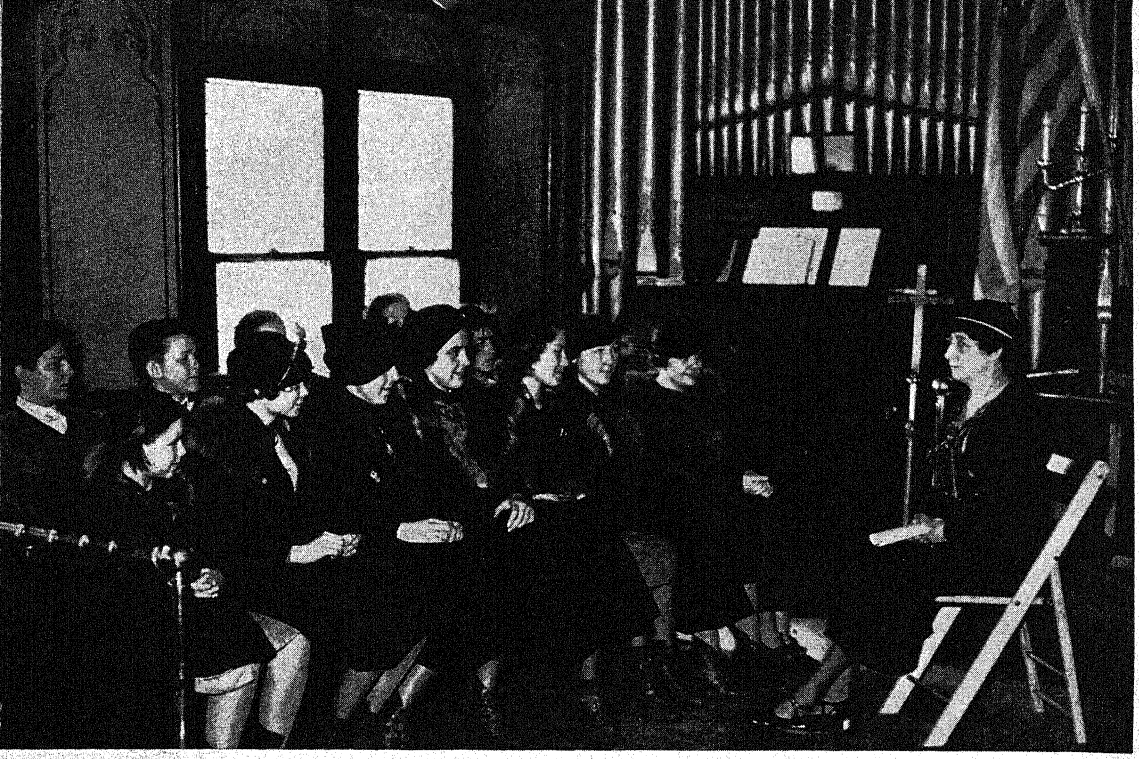
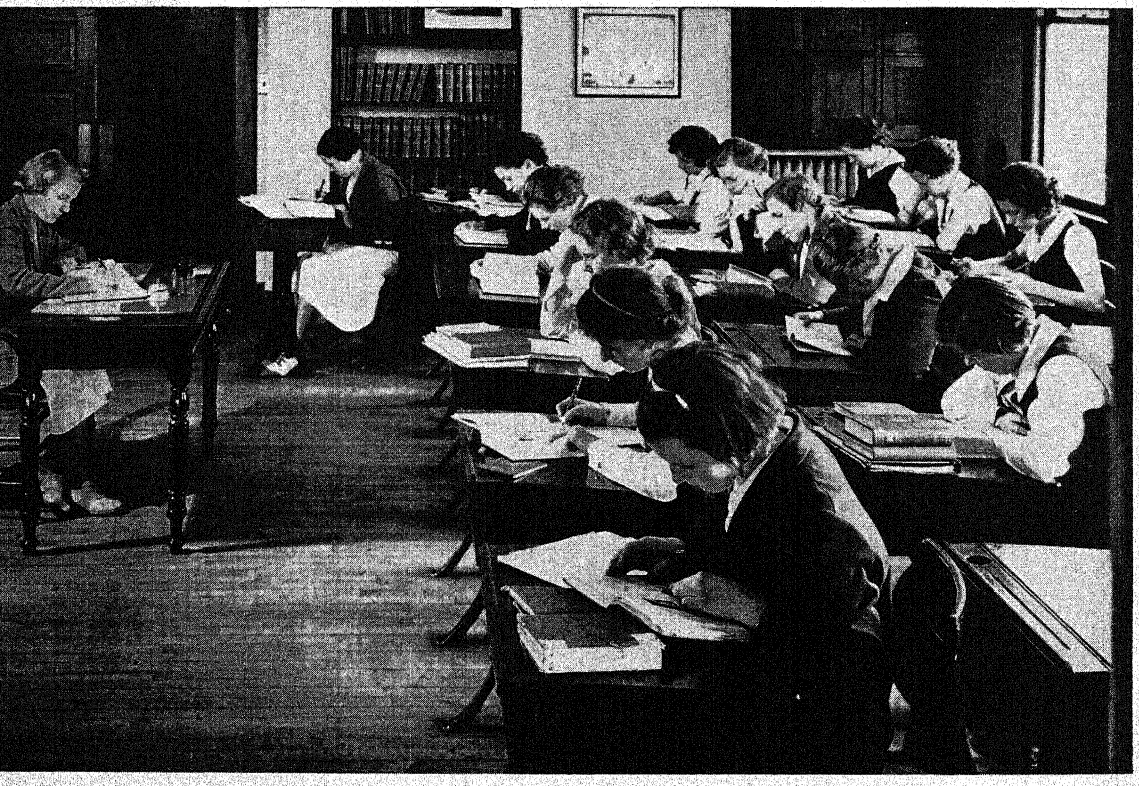


PLATE 12. THE EDUCATIONAL FUNCTION VARIES WITH THE STATE OF THE DIFFERENT SOCIAL INSTITUTIONS

In the period of the household economy the family was the greatest educational institution, instructing the young in physical education, manual training, and vocational education. At the height of the influence of the Roman Catholic Church the function of education was highly developed in the church. Much vocational training in skilled trades is given, either formally or informally, by industry. (See above picture.) *Classroom education, a function of the government, is an*



Ewing Galloway



sel neatness in appearance, consideration for the wishes of others, and taking interest in the same things. The list might be extended to great length. The divorce laws usually recognize adultery, desertion, drunkenness, insanity, conviction of felony, neglect to provide, and mental cruelty as legitimate causes for divorce.

From these general observations we may turn to the more specific findings of systematic investigation. Terman has listed thirty-five grievances of which complaint is commonly made in marriage. These complaints he has ranked in order of seriousness to both husbands and wives. The results are shown in Table 34. These complaints are to be regarded partly as rationalizations and partly as symptoms of underlying problems, rather than as basic factors, such as personality deficiencies or sex maladjustment. Such a list of grievances will vary from period to period, probably from country to country, and perhaps by social or occupational classes. Table 34, however, serves as a good inventory for the class from which most college students come.

Many of these grievances would be of importance in the close association of any two persons, whether of different sex or not. But marriage is an association of male and female; hence, sex must be an important relation in marriage. It is commonly said by those who have looked closely into the experiences of divorced persons just prior to the breaking up of the marriage that sex difficulties between mates are always, or nearly always, present in divorce. But such a statement tells us little since a divorce means that sex relations have probably been terminated at some prior time. Furthermore, sex among human beings is not a simple physiological reaction relatively unaffected by learning, as it is among rats, but instead is conditioned by experience and a large variety of social and cultural factors. If there is failure in the sex aspects of marriage, this failure may be due to psychological and cultural factors that impinge on sex and disturb its operation. Sex maladjustments of an organic nature are rare. Burgess and Cottrell report that "with the majority of couples, sexual adjustment in marriage appears to be a resultant not so much of biological factors as of psychogenetic development and of cultural conditioning of attitudes toward sex." [1] A somewhat similar position is taken by Levy [2] and by Harriet Mowrer,[3] who see the sexual side of

[1] E. W. Burgess and L. S. Cottrell, Jr., predicting success or failure in marriage, p. 347.

[2] John Levy and Ruth Monroe, the happy family (New York: Alfred A. Knopf, 1938).

[3] Harriet Mowrer, personality adjustment and domestic discord (New York: American Book Company, 1935).

TABLE 34. SEX DIFFERENCES IN THE SERIOUSNESS OF 35 GRIEVANCES *

RANK ORDER FOR HUSBANDS		RANK ORDER FOR WIVES	
Not affectionate	1	1	Selfish and inconsiderate
Selfish and inconsiderate	2	2	Untruthful
Complains too much	3	3	Argumentative
Quick-tempered	4	4	Complains too much
Conceited	5	5	Not affectionate
Insincere	6	6	Nervous or impatient
Criticizes me	7	7	Insincere
Narrow-minded	8	8	Management of income
Argumentative	9	9	Criticizes me
Untruthful	10	10	Not faithful
Spoils children	11	11	Lazy
Management of income	12	12	In-laws
In-laws	13	13	Influenced by others
Insufficient income	14	14	Narrow-minded
Nervous and emotional	15	15	Insufficient income
Influenced by others	16	16	Interested in other women
Jealous	17	17	Amusement and recreation
Lazy	18	18	Quick-tempered
Amusement and recreation	19	19	Attitude toward drinking
Too talkative	20	20	Intellectual interests
Choice of friends	21	21	Respect for conventions
Interested in other men	22	22	Conceited
Lack of freedom	23	23	Choice of friends
Respect for conventions	24	24	Spoils children
Intellectual interests	25	25	Lack of freedom
Attitude toward drinking	26	26	Too talkative
Not faithful	27	27	Religious beliefs
Religious beliefs	28	28	Jealous
Educations	29	29	Swears
Swears	30	30	Drinks
Tastes in food	31	31	Educations
Wife older	32	32	Husband older
Smokes	33	33	Tastes in food
Drinks	34	34	Smokes
Younger	35	35	Younger

* LEWIS M. TERMAN, PSYCHOLOGICAL FACTORS IN MARITAL HAPPINESS (New York: McGraw-Hill Book Company, 1938), p. 105.

marriage as largely a matter of personality adjustment between two individuals. According to this view, personality is regarded as generally the most crucial single factor in marital adjustment. Personality is, of course, a complicated set of habits that serve to make us either integrated, nervous, or psychotic.

PERSONALITY OF HAPPILY MARRIED PERSONS

Personality is a vast area, only partly charted, and much too complex to be described in a few paragraphs. However, Terman [1] has tried to describe how the many different personality habits affect happiness in marriage. He summarized his findings in popular terms as quoted below. His summaries as thus expressed are necessarily approximate, since they are not in the precise language of science.

> Happily married women, as a group, are characterized by kindly attitudes toward others and by the expectation of kindly attitudes in return. They do not easily take offense and are not unduly concerned about the impressions they make upon others. They do not look upon social relationships as rivalry situations. They are co-operative, do not object to subordinate rôles, and are not annoyed by advice from others. Missionary and ministering attitudes are frequently evidenced in their responses. They enjoy activities that bring educational or pleasurable opportunities to others and like to do things for the dependent or underprivileged. They are methodical and painstaking in their work, attentive to detail, and careful in regard to money. In religion, morals, and politics they tend to be conservative and conventional. Their expressed attitudes imply a quiet self-assurance and a decidedly optimistic outlook upon life.
>
> Unhappily married women, on the other hand, are characterized by emotional tenseness and by ups and downs of moods. They give evidence of deep-seated inferiority feelings to which they react by aggressive attitudes rather than by timidity. They are inclined to be irritable and dictatorial. Compensatory mechanisms resulting in restive striving are common. These are seen in the tendency of the unhappy wives to be active "joiners," aggressive in business, and overanxious in social life. They strive for wide circles of acquaintances but are more concerned with being important than with being liked. They are egocentric and little interested in benevolent and welfare activities, except in so far as these offer opportunities for personal recognition. They also like activities that are fraught with opportunities for romance. They are more inclined to be conciliatory in their attitudes toward men than toward women and show little of the sex antagonism that unhappily married men exhibit. They are impatient and fitful workers, dislike cautious or methodical people, and dislike types of work that require methodical and painstaking effort. In politics, religion, and social ethics they are more often radical than happily married women.

[1] LEWIS M. TERMAN, *op. cit.*, pp. 145–46.

Such is Terman's picture of the personalities of the happy and the unhappy wives. He then proceeds to give his conclusions as to the personalities of the happy and the unhappy husbands: [1]

> Happily married men show evidence of an even and stable emotional tone. Their most characteristic reaction to others is that of co-operation. This is reflected in their attitudes toward business superiors, with whom they work well; in their attitude toward women, which reflects equalitarian ideals; and in their benevolent attitudes toward inferiors and underprivileged. In a gathering of people they tend to be unself-conscious and somewhat extroverted. As compared with unhappy husbands, they show superior initiative, a greater tendency to take responsibility, and greater willingness to give close attention to detail in their daily work. They like methodical procedures and methodical people. In money matters they are saving and cautious. Conservative attitudes are strongly characteristic of them. They usually have a favorable attitude toward religion and strongly uphold the sex mores and other social conventions.
>
> Unhappy husbands, on the other hand, are inclined to be moody and somewhat neurotic. They are prone to feelings of social inferiority, dislike being conspicuous in public, and are highly reactive to social opinion. This sense of social insecurity is often compensated by domineering attitudes in relationships where they feel superior. They take pleasure in the commanding rôles over business dependents and women, but they withdraw from a situation which would require them to play an inferior rôle or to compete with superiors. They often compensate this withdrawal by daydreams and power fantasies. More often than happy husbands, they are sporadic and irregular in their habits of work, dislike detail and the methodical attitude, dislike saving money, and like to wager. They more often express irreligious attitudes and are more inclined to radicalism in sex morals and politics.

Terman [2] states his theory, for which he has some evidence, as follows:

> Our theory is that what comes out of a marriage depends upon what goes into it and that among the most important things going into it are the attitudes, preferences, aversions, habit patterns, and emotional-response patterns which give or deny to one the aptitude for compatibility. In other words, we believe that a large proportion of incompatible marriages are so because of a predisposition to unhappiness in one or both of the spouses. Whether by nature or by nurture, there are persons so lacking in the qualities which make for compatibility that they would be incapable of finding happiness in any marriage. There are others, less

[1] TERMAN, *op. cit.*, p. 155. [2] TERMAN, *op. cit.*, p. 110.

extreme, who could find it only under the most favorable circumstances; and still others whose dispositions and outlooks upon life would preserve them from acute unhappiness however unfortunately they were mated.

PREMARITAL TRAITS THAT FORESHADOW SUCCESS OR FAILURE IN MARRIAGE

The traits that make or mar happiness in marriage exist in some degree in individuals before marriage. Where "in-laws" and family finances are sources of friction, they will be more disastrous with some types of personalities than with others; and personalities are in large measure already formed by the time marriage is contracted.

Outstanding among the results of several investigations is the conclusion that a happy childhood in a home of happily married parents is conducive to a successful marriage. This conclusion is reported by Burgess and Cottrell, Terman, Popenoe,[1] and Schroeder.[2] Also, most investigators find that education in high school and college helps to make marriage a success. This conclusion was reached by Burgess and Cottrell, Schroeder, Katherine Davis,[3] and Hamilton.[4] Burgess and Cottrell report that happiness in marriage is more likely to be found by men and women who are well socialized as young people; who participate in the activities of clubs, church and school; and who have many friends. Attachment to parents is also found to be a good sign. Table 35 shows the comparative findings of recent researches on premarital factors conducive to success in marriage.

THE PERSONALITY OF CHILDREN

Some observers consider that the proper rearing of children is a more important objective of the family than is that of providing happiness for the mates. It is generally agreed that the early years are the most formative of personality. These early years are spent largely in association with parents, nurses, brothers, sisters and playmates who have connections with the family. Hence, the family environment is most important in making the personality of the adult what it is.

[1] PAUL POPENOE, "MARITAL HAPPINESS IN TWO GENERATIONS," MENTAL HYGIENE, 21:218–31, April, 1937.

[2] CLARENCE W. SCHROEDER, DIVORCE IN A CITY OF 100,000 POPULATION (Doctor's Dissertation, University of Chicago, 1938).

[3] KATHERINE B. DAVIS, FACTORS IN THE SEX LIFE OF TWENTY-TWO HUNDRED WOMEN (New York: Harper and Brothers, 1929).

[4] GILBERT V. HAMILTON, A RESEARCH IN MARRIAGE (New York: A. C. Boni, Inc., 1929).

TABLE 35. PREMARITAL FACTORS CONDUCIVE TO SUCCESS IN MARRIAGE *

Premarital Items	Studies by Bernard, Davis, Hamilton, Hart, Kirkpatrick, Popenoe, and Schroeder	Terman's Study (792 Couples)	Study by Burgess and Cottrell (526 Couples)
Acquaintance, length of		H,† three years or more W,† one year or more	Two or more years
Age at marriage	H, 24 and over W, 20 and over (Hart)	H, 22 and over W, 20 and over	H, 22 to 30 W, 22 and over
Age difference	H, 0 to 10 years older W, 0 to 5 years younger (Bernard)		H, older by one to three years or same age as wife
Attachment to father		Good deal or very close	H, close W, close
Attachment to mother		Good deal or very close	H, close W, close
Attachment to parents, degrees of preference	W, absence of greater intimacy with one parent (Kirkpatrick)	W, absence of markedly greater attachment	
Attachment to siblings			H, none W, none or younger brother
Babies, learned origin of		W, 6 to 16 years	
Brother	W has (Hamilton)		
Church attendance	Three times a month (Schroeder)		H, two or more times a month W, four times a month
Conflict with father		None or very little	H, little or none W, little or none
Conflict with mother		H, none W, none or very little	H, little or none
Courtship, length of			Three or more years
Discipline in home		Firm but not harsh	
Education	W, beyond high school (Davis) Spouses have equal education (Hamilton) beyond high school (Schroeder)	Beyond high school	H, college graduate or professional W, college, postgraduate, or professional
Employment, length of			W employed seven or more years
Employment, regularity			Regularly
Employment, type			W, same as or similar to what she wants

* ERNEST W. BURGESS and LEONARD S. COTTRELL, JR. PREDICTING SUCCESS OR FAILURE IN MARRIAGE, pp. 357–59. Copyright, 1939, by Prentice-Hall, Inc., reprinted by permission.

† The symbol, *H*, indicates husband; *W*, wife.

TABLE 35 (*continued*)

Premarital Items	Studies by Bernard, Davis, Hamilton, Hart, Kirkpatrick, Popenoe, and Schroeder	Terman's Study (792 Couples)	Study by Burgess and Cottrell (526 Couples)
Engagement, length of	Did not elope (Popenoe)	H, six months or longer W, three months or longer	Nine months or more
Family background, level			Superior level
Family background similar			Similar
Friends, men			H, several or many W, does not lack
Friends, women	H, excess or deficiency (Kirkpatrick)		H, several or many W, many
Happiness in childhood		Above average	
Health	W, healthy (Davis)		H, healthy
Height-weight deviation			W, 15 or more pounds underweight
H physically resembles W's father		W, none, some, or close	
Income			H, moderate W, moderate
Married by	Minister or priest (Schroeder)		Minister, priest, or rabbi
Married where			At church or parsonage
Meeting place, first		Other than "pick-up" or a place of private or public recreation	
Membership in organizations			H, two or more W, three or more
Menstruation, age at first		W, not before 12 years	
Mental ability, relative		W, husband not inferior H, husband not much superior	
Mother's (H's) attractiveness as rated by H		H, average or above	
Occupation			H, certain occupations W, teaching
Order of birth		W, not only child	H, not only child; if only or youngest, do not marry only or youngest

TABLE 35 (*continued*)

Premarital Items	Studies by Bernard, Davis, Hamilton, Hart, Kirkpatrick, Popenoe, and Schroeder	Terman's Study (792 Couples)	Study by Burgess and Cottrell (526 Couples)
Parents' approval of marriage			Approved by both
Parents' marital happiness	Rated happy (Popenoe, Schroeder)	W, about average or happier Rated (happy) H, rated decidedly happier than average	Rated happy
Parents' marital status	Not divorced or separated (Schroeder)		
Petting (or spooning)	W, none (Davis)	W, never	
Rearing, urban or rural	Country and small town (Schroeder)		Reared in country
Punishment in childhood		None, rare, or occasional	
Religious home training		H, considerable	
Residence, neighborhood			H, in suburbs W, small town or city suburb
Savings			H, has
Sex — response of parents to child's early curiosity		Frank	
Sex, attitude toward		H, indifference or interest and pleasant anticipation	
Sex information, source of		Parents or teachers	
Sex, desire to be of opposite		W, never desired	
Sex instruction	W, some (Davis) from mother or books (Schroeder)	H, more than very inadequate W, not entirely lacking	
Sex shock		W, none from 10 to 15 years	
Sexual intercourse	W, none (Davis) W, none (Hamilton)	None, or with future spouse only	
Sunday-school attendance	Beyond 18 years (Schroeder)		Beyond 18 years
Wife physically resembles H's mother	H, wife resembles (Hamilton)	H, some or none	

CRITERIA OF A GOOD FAMILY ENVIRONMENT

How can we ascertain the marks of a good family environment in our present-day society? One promising method is to compare the home background of well-adjusted and poorly-adjusted children. Clearly a good home is one that produces the former, and not the latter. Terman [1] in his marriage study, for instance, found that a child's chances of achieving a happy marriage are much greater if his parents have been happily married. Also favorable for marital happiness is a close affectional relationship of the child with his parents, evidenced on the one hand by the absence of serious conflict between parent and child, and on the other by the child's sharing of confidences with his parents. In another study,[2] a high degree of correlation was found between the behavior adjustment of 33 nursery-school children and the marital adjustments of their parents. For instance, of 22 couples who were poorly mated, 20 had children who were poorly adjusted; whereas of 11 couples who were well mated, 10 had children who were also well adjusted. A good family environment for children, then, is one that provides an emotionally satisfying relationship with parents, based on affection and protection. Underprotection and underaffection lead to feelings of insecurity, which in turn sometimes cause the child to resort to anti-social behavior as a means of compensation. For example, a comparison [3] of delinquent and non-delinquent children from the same family showed that the former were those who for one reason or another had failed to develop an emotionally satisfying relationship with their parents.

While an affectionate relationship between parent and child is desirable, there are dangers in affection if it is given unwisely and in large doses. Overaffection and overprotection tend to produce the "spoiled child," especially if association with other children does not provide a corrective. Studies [4] of overprotective mothers show that a proportion larger than would occur by chance were underprotected and underloved

[1] See table on page 730.

[2] DOROTHY WALTER BARUCH, "A STUDY OF REPORTED TENSION IN INTERPARENTAL RELATIONSHIPS AS COEXISTENT WITH BEHAVIOR ADJUSTMENT IN YOUNG CHILDREN," JOURNAL OF EXPERIMENTAL EDUCATION, 6:187–204, December, 1937.

[3] WILLIAM HEALY and AUGUSTA BRONNER, NEW LIGHT ON DELINQUENCY (New Haven: Yale University Press, 1936).

[4] ELIZABETH HOUGH, "SOME FACTORS IN THE ETIOLOGY OF MATERNAL OVERPROTECTION," SMITH COLLEGE STUDIES IN SOCIAL WORK, 2:188–208, March, 1932; also PATRICIA FOLEY, "EARLY RESPONSIBILITY AND AFFECTION HUNGER AS SELECTIVE CRITERIA IN MATERNAL OVERPROTECTION," *ibid.*, 2:209–23, March, 1932.

in their own childhood, so that their present behavior represents overcompensation on their part. It appears to be difficult to achieve psychological balance once the scales of personality have been tipped.

Praise and blame, like affection, are powerful instruments in shaping personality. A number of studies show that the good family environment provides steady moderate discipline, rather than either of the two extremes, that is harsh discipline or no discipline at all. Terman found that the type of home discipline which most tends to be associated with marital happiness is that which is described as "firm" but not "harsh." The harsh type of discipline characterizes the so-called authoritarian household, while the firm is more often associated with the democratic or equalitarian household. Sanderson and Foster [1] compared 55 farm families according to type of control pattern and found that traits commonly regarded as of social value, such as participation in community affairs, were more frequently found in the equalitarian than in the authoritarian families. In another study [2] it was also found that poor parental discipline, taking the form of extensive criticism, was associated with poor adolescent adjustment. Criteria of a good family environment reported by this investigation are: little parental criticism; absence of nervousness in both parents; frequent confidences between parents and children; some physical expression of affection; and common family activities.

The Future of the Family

The review which has just been given of the different functions of the family found in the various preliterate cultures and in the historical period shows that the family has changed a good deal in the past and has assumed many different forms and functions. The family has proved to be a very resilient and flexible institution. Despite radical changes in form and function, the family has continued to exist in every society known to us. The craving for affection and the need of rearing children have undoubtedly been fundamental factors in making the family an omnipresent and enduring social institution.

What has been happening in recent years is the decline of the family as an economic institution, with consequent loss of many social functions.

[1] D. Sanderson and R. G. Foster, "A sociological case study of farm families," The Family, 11:107–14, June, 1930.

[2] Ernest W. Burgess, The adolescent in the family [White House Conference on Child Health and Protection, III A, (New York: D. Appleton-Century Company, 1934), p. 274.]

These social functions of the family have by no means entirely disappeared, but relatively there has been a great decline. So great has been the change that young people today think of the family chiefly as an institution for the provision of marital happiness and the rearing of children. These functions of the family need more study. It seems altogether probable that further study will reveal knowledge that will make it possible for the family to be a source of greater happiness for all its members. In the past, students of the family have focused their attention primarily on the economic and social functions and have made little effort to solve in a scientific way the vital problems of personality.

Of the many different forces that will play upon the family in the future, one that certainly deserves special consideration is electricity. It will be recalled that the steam engine was responsible for many changes in the family. The steam engine put power machinery in the factory, hastening the departure of industry from the home. But now electricity is putting power back into the home.

Apparently there are those who think that electricity may bring back to the family the grandeur that once belonged to it as an economic and social institution,[1] but this result does not seem probable. For one thing, the family size is too small for managing modern industry. Furthermore, with modern industry have come the economies of mass production. The capital costs of home industry run by electricity would be large, as would be also the costs of repairs and replacements. However, where tools, such as the vacuum cleaner or the electric washing machine, are used every day or every week, and where the market is only the family, industries may be retained in the home. Already one such industry, the manufacture of ice, is leaving the factory and returning to the home.

On the other hand, it seems very probable that electricity may keep much recreation in the home and even bring some back from commercial institutions. The radio, the phonograph, television, and facsimile transmission all may make the home a very attractive recreation center. Also, electricity brings many convenient devices for the yard, the kitchen, library, dining room, and bedroom. These developments, while quite material, are not without social influence.

In the past, societies have been characterized quite generally by a single prevailing type of family organization. But at present many different types of family organization exist, a situation which may be

[1] RALPH BORSODI, THIS UGLY CIVILIZATION (New York: Harper and Brothers, 1933).

expected to continue in the future. Mowrer [1] lists in the city today the paternal family; the maternal family; the equalitarian family; conventional and unconventional; and the filiocentric family. The rural family is quite different from the urban family, and the village family is somewhat different from both, though it tends to resemble the urban family more than the rural family. Broken families and families without children differ greatly from unbroken families and those with children. Thus continued diversification of family life is to be expected in our complex, rapidly changing society.

[1] ERNEST R. MOWRER, THE FAMILY (Chicago: The University of Chicago Press, 1932), p. 96.

SUMMARY

The family is not confined to man, which means the family as such is a biological phenomenon based on sex and parental functions. In every known human society, however, the family is elaborated into a cultural organization; that is, it is surrounded by rules and rituals. Marriage has evolved as an institution, for which certain entrance requirements are set up, such as age, personal and economic qualifications. Animals lack such regulation and control of mating. In human society, the number of mates allowed is set by the folkways. Either monogamy, polygyny, or polyandry may be favored, depending on many factors, the most important being economic. Yet, regardless of the number of mates permitted, the prevailing arrangement in every society is the marriage of one man and one woman. Marriage outside the group, or exogamy, is enjoined in some cases, and is sometimes correlated with endogamy, prescribed mating within a group. Similarly, the culture defines how the mate shall be obtained, for example, by purchase, exchange, or service. After marriage, society determines whether the residence of the couple shall be matrilocal, patrilocal, or independent. In some societies, the married couple form the nucleus of the family; in others, the blood ties between parent and child are emphasized, which gives rise to the consanguine family organization and the clan.

It is evident that there has been no unilinear evolution of the family from the simple to the complex. Family life today is not greatly unlike early family life in its small size and relative economic unimportance. Even so, the family has shown a great deal of variation at different times and in different places. The modern family stands in marked contrast to the earlier agricultural family; in the latter, economic functions are particularly prominent, the family being an almost completely self-sustaining business enterprise. Under these conditions, marriage is favored, since a wife is needed on the farm, and children are useful workers. In such a system, the efficiency and suitability of mates is emphasized over affection as a basis for marriage. The home becomes the central social unit in the community and the family becomes the principal factor in determining the status of individuals.

With the growth of the factory system and the rise of cities, family life undergoes profound changes. The economic functions are largely

transferred to outside agencies, and the family declines in economic significance. A mate is no longer automatically a worker and an economic asset as before, but may now be an economic liability. Hence, the economic motives for marriage, long characteristic of the institution, cease to be prominent. Children also are expensive to have, so with the aid of scientific contraception, the family tends to be much smaller. With the large-scale transfer of traditional functions to outside agencies and the reduction in the size of the family, increasing emphasis is placed on psychological values such as affection, companionship, and emotional security. This situation, in turn, has the effect of stimulating research in the field of personality, with the result that recently there have been important findings as to certain factors involved in marital happiness and adequate child guidance. While the intensification of research along these lines in the future is likely to provide new aids in strengthening the personal side of family life, the extension of electric power into the home may increase the economic and recreational functions of the family as well.

QUESTIONS FOR DISCUSSION

1. Why is family life in general affected so greatly by the economic functions the family performs?
2. In what respects is the modern family similar to the family among preliterate hunters? Dissimilar? Why?
3. What are the advantages of the large family organization such as is found in China compared with those of the small family unit of the United States?
4. What are endogamy and exogamy? How do you account for these regulations?
5. Is polygynous marriage degrading to woman?
6. How does divorce in primitive culture compare with that in modern culture as to frequency and method?
7. Why is the family an omnipresent social institution?
8. Which is the more common, matrilocal or patrilocal residence? Which type makes for greater family stability?
9. Why are there so few instances of true matriarchal societies?
10. How does the urban family differ from the rural?

11. Is marriage more successful on a fifty-fifty basis, or when the husband is the head of the house? Why?
12. In the light of recent researches, what factors should one keep in mind in choosing a mate?
13. How can parents distinguish between affection and over-affection, protection and overprotection?
14. In what ways will electricity benefit the home? May it also hinder home life in some respects?

TOPICS FOR REPORTS

1. Divorce in primitive society.
2. Theories of the origin of the incest taboo.
3. Exogamy and endogamy in modern society.
4. Modern life and the romantic complex.
5. Studies of factors affecting success in marriage.
6. Predicting success in marriage.
7. Marriage clinics in Europe and America.
8. The gainful employment of married women.
9. The future of the family.

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A highly significant, pioneer study of the factors that predispose marriage to success or failure.

CALHOUN, A. W., A SOCIAL HISTORY OF THE AMERICAN FAMILY, vol. I. Cleveland: Arthur H. Clark, 1917.

The definitive study of the colonial American family. Valuable material as a background for modern changes.

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In previous editions, entitled: A HISTORY OF THE FAMILY AS A SOCIAL AND EDUCATIONAL INSTITUTION. *The defin-*

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A celebrated description and analysis of the family system of a preliterate people, the Trobriand Islanders. The title of the book is misleading, since the total family system is considered, not merely the sexual life. The other studies of family life by this author are also distinguished: THE FAMILY AMONG THE AUSTRALIAN ABORIGINES *(1913);* THE FATHER IN PRIMITIVE PSYCHOLOGY. *New York: W. W. Norton and Company,* 1927.

MEAD, MARGARET, COMING OF AGE IN SAMOA; also, GROWING UP IN NEW GUINEA.

Two fascinating pictures of family relations and the rearing of children in societies greatly different from our own. The author stresses the relevance of the educational practices of these peoples for our own family education.

THE MODERN FAMILY. A symposium of great worth, to which is devoted the entire issue of the ANNALS OF THE AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE, 160, March, 1932. See also the more recent symposium in the AMERICAN SOCIOLOGICAL REVIEW, October, 1937.

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Concrete data on recent social changes in the American family, showing shifting functions.

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Invaluable, along with the study by Burgess and Cottrell, as a careful, scientific study of the causes of marital happiness.

THOMAS, W. I., and D. S. THOMAS, THE CHILD IN AMERICA.

Presents varieties of maladjustment among children, practical programs for the treatment of them, together with a searching

analysis of contemporary points of view concerning maladjustment. Comprehensive, balanced, and rich in illustrative material.

WALLER, W., THE FAMILY: A DYNAMIC INTERPRETATION. New York: The Cordon Company, 1938.

Traces the influence of the family upon personality, first in childhood, then in adolescence and courtship, next in married life, and finally in the disorganization of the family, as by death or divorce. Valuable as the most comprehensive development of the human nature approach to the family, whether the interpretations are reliable or not.

WESTERMARCK, E., THE HISTORY OF HUMAN MARRIAGE. 3 vols. New York: The Macmillan Company, 1921.

The classic study of marriage among preliterate peoples, with special emphasis on origins. Valuable in showing monogamy on the lowest cultural levels, but faulty in regarding it as the only normal pattern for all societies.

XXIII. THE INTERRELATIONSHIP OF INSTITUTIONS

THE MAJOR INSTITUTIONS of mankind have passed before us in brief review. This review should help the student to understand how, starting with little or nothing, we acquired our great social institutions. Now that the different fields have been surveyed, it is desirable to see what observations may be made concerning social institutions in general.

THEORIES OF THE GROWTH OF SOCIAL INSTITUTIONS

There have been a number of attempts to deduce general laws that would account for the evolution of institutions, but without very much success. Herbert Spencer [1] advanced the theory that institutions evolved from the simple to the complex, and from the homogeneous to the heterogeneous. But this description would hardly characterize the trend of the family organization in recent times. Nor does it seem to account for language. Modern languages, for instance, are much simpler in structure than most primitive languages. It is very doubtful, also, if the religion of recent times is any more complex than that of the primitive peoples. The Australian "blackfellows," with an extremely rudimentary material culture, have a most elaborate ceremonial system.

At one time it was thought that an institution evolved through a definite number of stages. Lewis Morgan [2] and his contemporaries claimed that marriage began after a period of sexual promiscuity as the sexual union of a group of males with a group of females. This was supposed to be followed by the sexual union of a female with a varying number of males, residence being with the female. Later, it was thought, a male had a number of wives, and kinship was reckoned in the male line. As man evolved still further, marriage became monogamous, and kinship was counted on both the male and the female sides. This theory is in harmony with popular beliefs concerning the evolution of man from the brute stage. Unfortunately for the theory, however, the facts brought

[1] HERBERT SPENCER, FIRST PRINCIPLES (New York: D. Appleton Company, 6th edition, 1924).

[2] LEWIS MORGAN, ANCIENT SOCIETY (New York: Henry Holt and Company, 1878).

forward by more extensive and accurate ethnographic researches since Morgan's time do not support the claim. As was indicated in the chapter on the family, many primitive peoples with very simple cultures have monogamy, and in a few instances separation and remarriage are not allowed. There is no evidence to show that a condition of general sexual promiscuity has ever existed in any culture. Similarly, other attempts to trace a succession of stages through which an institution in any and every culture must evolve have met with failure.

DIFFUSION AS A DISTURBER OF UNILINEAR EVOLUTION

One reason why an institution does not go through the same set of stages in every culture is that modifications come in from outside. Thus, for instance, government in the Philippine Islands may become a democracy by direct importation of this type of government from America, without having to go through the various stages of monarchial and autocratic government that preceded democracy in Europe. If it were not possible to modify the development of religion, the work of missionaries would be of no avail. If the Filipinos were completely isolated and had no contact, by observation or otherwise, with the other parts of the world, the evolution of their form of government would be different from what it is when the people may observe types of government in other countries, or may even have a type of government brought in from outside by a conqueror and imposed upon them. If all countries of the world were separate little planets not in touch with each other, the probability of institutions evolving through the same stages would be greater. But when all peoples are in contact with a good many other peoples, with institutions in varying degrees of development, and when culture traits are being diffused from one people to another, the course of development of any institution will differ from place to place.

It is to be noted, moreover, that institutions belong to particular culture areas and few, if any, exist for the world as a whole. In speaking of the evolution of institutions, unless some sort of a composite photograph is the conception, evolution must be considered in a particular cultural area rather than in the world as a whole. An account of the development of any institution for the world must be blurred as is a composite photograph. Any series of evolutionary stages is in the nature of actual historical records for a particular area rather than in the nature of laws of evolution for society in general.

THE INTERDEPENDENCE OF CULTURAL INSTITUTIONS

Another reason for the varied growth of social institutions in different cultures is the interdependence of the different social institutions. In the chapter on religion it was shown how religious organization varied with the state of science. In a similar way education is a function of the state at one time and of the family at another. Education also varies according to changes in the organization of religion and industry. In this manner the institutions are all related to one another. It follows that no single institution, such as the educational, evolves independently. Just as the Philippine Islands do not exist on a separate planet out of touch with the other countries, just so educational institutions do not exist in isolation from the other institutions of the culture. The stage of development of the other institutions, industry, family, church, and government — will modify the course of development of the educational organization. In the various cultural areas the institutions other than the educational institutions will be in different stages of development, and it follows that the educational development will be varied.

Such is very clearly the case with marriage. It may be affected, for instance, by the sex ratio, by the presence or absence of a clan organization, by religious attitudes, by the type of work done by the women and by the men. Actually the forms of marriage vary widely among peoples with a simple material culture, as well as among those whose material culture is more advanced. In the case of marriage, therefore, it would seem futile even to try to draw any series of composite pictures of the evolution of marriage, for the reason that it is so much affected by other elements of the cultural pattern. In conclusion, the difficulty in describing the evolution of an institution lies in the fact that it must be traced in a particular cultural area.

THE RANKING OF CULTURES AND INSTITUTIONS

In spite of what has just been said, some ranking of culture traits from earlier to later in order of appearance is very desirable. Such a ranking is difficult to obtain, as has been shown in the case of marriage, because monogamy appears in very simple preliterate cultures as it does also in modern complex cultures.

Sequence of stages in the evolution of material culture. Material cultures, however, are more easily classified in a series from early to late stages than are social organizations. The food gatherers, with wood and stone imple-

ments but without very much dependence on the hunting of wild animals, must be very early types. More skill in making weapons, presumably coming later, would lead to a greater emphasis on hunting and trapping. The evolution of hunting techniques and the delay in developing horticulture is such as to lead to a classification of societies extending from simple hunting cultures to complex ones. Agriculture begins with the digging stick and later comes to use the plow, combining with it domestic animals. Still later come steam, oil, and electricity.

Such a series is fairly reliable because of the tendency of a superior tool to replace one that is inferior. The superiority of a new mechanical tool is more readily determined than is the superiority of a new religion or a new mythology. The excellence of a technological instrument, which rests on a simple test of what it will do in physical achievement, is easily demonstrable. But the excellence of a social organization is generally not to be determined by any such simple test; it rests, instead, upon a number of factors, particularly its articulation with other social institutions. The value of a tool is not so dependent upon its relation to some social organization.

The creation of a new tool depends on the existing knowledge about tools. The invention of the airplane was dependent on the existence of the gasoline engine, and the gasoline engine was dependent on the use of metals. In the case of a mechanical invention, the dependence on what has gone before is more readily discernible than in the case of an invention in the kinship system, or in a type of leadership. There is thus a logical or instrumental priority in material culture, whether there is a temporal priority or not. It is true that in the nineteenth century the Tasmanians existed with only a crude stone culture, while Europeans were using power machinery. Yet despite the contemporaneousness of these two divergent cultures in the nineteenth century, we are able to infer that, for the world as a whole, the stone age preceded the age of metals and of steam power. But there is also actual historical evidence in Europe of this fact, in the archeological finds, whose time is established by geological strata and records of fauna.

The material culture as a point of reference for the study of the evolution of other parts of culture. Since the sequence in material culture is partly a matter of record and partly inferable, it is possible to make some use of this fact in classifying institutions and other parts of culture for which there are no discernible historical sequences, or where the sequences can be inferred only in very broad terms. The material culture thus becomes

a standard of comparison or a term of reference. With no clearcut sequence of stages in the evolution of the family, it is customary to inquire as to the types of family, for instance, among the food gatherers and lower hunters or among the agricultural and pastoral peoples. Inferences are thus made as to the history of the family, based upon associations with the stages of material culture.

Institutions as Integral Parts of a Social System

The difficulty in finding an orderly series of stages in the evolution of a particular institution lifts to a point of major consideration one of the reasons for such confusion: the interrelationship of institutions. The interdependence of institutions is also important on other accounts as well.

This close interrelationship of institutions means, for instance, that a thorough understanding of any one institution cannot be had with any degree of particularity unless it is seen in terms of the other institutions to which it is related. Organized religion cannot be adequately studied if it is torn from its connection with government, morals, family, education, science, and the other aspects of culture. It is, of course, possible to outline the different forms that religion has taken in successive ages without considering the surrounding culture in detail. Such a method will give an outline of development in broad strokes but will always fall short of providing full understanding.

THE INTERCONNECTION OF INSTITUTIONAL FUNCTIONS

The interconnection of institutions is best seen from the point of view of function rather than of structure, for the correlation of the different parts of culture is a functional one. The relationship of schools to industry in modern society is a matter of the functions performed by industries and the functions the schools exercise in equipping the young for earning a living in industry. If the major industry is agriculture, the family may do most of the educating for the future vocation of the youth. If, however, factory production prevails, as it does in modern urban life, the school rather than the family may take over the educational function of training for work. Similarly, the family and the church are interrelated. There may be a taboo against the intermarriage of persons of different religious faith. The church may perform the marriage ceremony and have a great deal to say about whether or not the tie may later be severed. There may be prayers or sessions of worship in the household, and in some cultures the

patriarch is a sort of high priest. The church and the family may share in the education of the children. In other ways as well, the family and the church are interconnected. The various institutions are all related to one another in the functions they perform. They are integrated like the parts of a clock.

The pattern of institutional interrelationships. This intercorrelation of the parts of a culture — its organized social life — is so close and so varied that the word "pattern" has come to be used to describe it.[1] The interrelationships take on a design, a configuration, differing according to time and place, much as there are different patterns for clocks, which have varied from the early water clocks of Egypt to the electric clocks of today. The culture configurations will differ in various culture areas, even though in each and every area there are family, local community, religious, and economic organizations.

Why particular institutions may have different patterns under various circumstances. That such unique configurations can exist among the same set of social institutions is based in part on the fact that there is not necessarily close correlation between the form of an organization and its functions. This point is important and needs to be further considered. A committee, for example, may do a great many different things. It may legislate, execute, or judge, on a variety of matters. The committee organization may be the same in each case, yet its functions vary widely.

A less general illustration may be cited. The Pueblo Indians have a very elaborate ritual used in trying to get rains and to increase the fertility of the land. Their neighbors, the Navaho, have taken over some of this culture pattern but use it largely for an entirely different function, the curing of disease. The organizational structure is the same in both cases, but not so the function. Likewise, the "Monroe Doctrine," an instrument of foreign policy of the United States, has radically changed its functions in a century, yet has maintained the same structure and name. The doctrine was announced a century ago for the purpose of keeping foreign armies off the soil of the Americas. Now the same pronouncement is invoked to maintain the Americas to the south as a field for investment of American capital. We conclude, then, that a social structure may be put to a variety of uses.

Function changes more frequently than structure. The modification of the function of an institution while its structure persists is a very important aspect of cultural evolution. Structure does not usually change as often

[1] Cf. RUTH BENEDICT, PATTERNS OF CULTURE.

as function. This may indicate the difficulty of making or inventing a new social structure. This phenomenon is sometimes called cultural inertia, but undoubtedly there is inertia in respect to functional change also. Structure changes less frequently because there is less need for change; as has been shown, the same structure can often serve many purposes. In any case, the persistence of structure while its functions change often misleads observers, who see the persisting structures more readily than the changing functions.

It must not be thought, however, that the structure of an institution may not be modified as its function changes. As the government takes on more executive functions, there is an increase in bureaus and commissions. The nursery school and the kindergarten, which handle the education of little children, have structures somewhat different from those of the high school and college, which serve youth. Likewise, where an institution performs different functions from one culture to another, there may be some variations in the structure of the institution. But despite the variations both in structure and in function, the persistence of the major institutions in all cultures and at all times is particularly to be noted.

THE PERSISTENCE OF MAJOR INSTITUTIONS

Institutions persist because they serve many functions. The church may conduct worship, it may minister to the sick, it may play a rôle in government, it may provide recreation for the young and sociability for their elders, it may try to regulate the morals of a community, it may be a source of aesthetic enjoyment, it may educate. When an institution fulfills so many different functions, it is not likely to lose its central or definitive function. In spite of the recent lopping off of functions in the case of both the church and the family, the church still continues as the chief organization for worship and the family as the chief organization for human reproduction. As long as these basic needs continue, institutions will exist to satisfy them.

It is important to note, moreover, that the secondary functions of an institution may be modified and even curtailed, but they are not as a rule lost altogether. This can be seen, for example, as regards the church and its educational function. Education is not as significant a church activity at present as it has been in the past. There have been times when the church had a virtual monopoly over formal education. Today the public schools exercise this prerogative. Despite this fact, the churches still

carry on educational activities of various kinds. The same situation exists for the family and its recreational function. The latter bulked large before the advent of commercialized play facilities. But the family, even now, takes care of the play needs of very little children. It is thought, too, by many that the coming of television will strengthen the recreational function of the family, so far as adults are concerned. In the same way it could be shown that other functions have not been completely lost but only transferred in part. Moreover, if institution "A" assumes a certain aspect of a function, then institution "B" may assume some other aspect. The recreation provided by the church may be different from that provided by the club, and that provided by the family may be still different. In a word, institutions share functions. What make institutional patterns different at various times and places are differences in emphasis and degree in the performance of certain functions.

The Transfer of Functions

One of the striking characteristics of our age is the shifting of functions from one institution to another. Particularly noticeable is the use of special purpose associations which may be said to perform some of the functions performed by the major institutions. The bridge club which furnishes recreation by playing cards renders a function formerly supplied by the family or the more general club. The bridge club may perform the function better or differently, but it is still a card-playing function or recreation. Other associations are concerned with hobbies, professions, types of recreation, or specialized functions derived from the major groupings of the economic institutions. These single-interest associations are made possible by larger population aggregates and by the differentiation and specialization which has naturally attended the growth of culture. While these minor associations have arisen to compete with the large institutions, the latter have experienced in modern times a great deal of shifting of functions among themselves, some institutions losing and others gaining ground.

This shifting of functions is shown by a consideration of four major social institutions, the family, church, industry, and government. Prior to the past few centuries in Europe, the first two institutions, family and church, were dominant and performed a very large number of services for mankind.

THE TRANSFER OF FUNCTIONS FROM THE CHURCH

The Roman Catholic Church in the Middle Ages was a truly remarkable institution. It assumed many of the functions of the state, especially in international relations, and played an important rôle in the governmental affairs of Italy, Spain, France, and England. At one time it was the seat of higher learning. Through the monasteries, the Church carried on extensive economic undertakings. It was the patron of the arts, music, and painting. Philanthropy and social work were largely activities of the Church and of religious people. The various holy relics were visited and touched by the sick and the maimed in order that they might be made well. Finally, the Church exercised an important moral censorship over human behavior.

Of all these functions associated with the Church a few centuries ago, only a small percentage remain today. State and church are now divorced in most countries. Education has come to be concentrated more and more in state schools and in private schools free from religious control. The church is no longer the aid to the arts that it was. Medical practice is now undertaken by private associations or is organized by the state. Although some social work is carried on by religious organizations, especially by the Catholic Church in the United States and by the synagogues, the larger volume of social work is done by the government, national and local, and by private subscriptions outside of the church. For centuries the church has been experiencing a shift of many of its functions to other organizations.

THE LOSS OF FUNCTIONS BY THE FAMILY

Like the church, the family has been seeing its functions transferred to other institutions. Most important is the loss of economic production. A few centuries ago the family organization, that is, the household, was the factory of the time. Nearly everything that was produced was produced by the family. Especially was this true under an agriculture using the plow. Indeed, the household was even more than a factory. Each family was also the market, so to speak, the consumer of what it produced. Under a self-sufficient farming system there was no need for money or stores, trade or transportation, for the producers consumed what they made, at the place where the goods were produced.

But production began to leave the household centuries ago. Metal-working and pottery-making were specialized outside, as were also the

production of silk and certain luxury goods. Things like gunpowder, bullets, and salt were also produced elsewhere. Then came steam which required a larger building than the home. To the factory went spinning, weaving, furniture-making, production of leather goods, and the fabrication of men's clothing. More recently women's dresses have been made in factories, as have also all kinds of knitted goods. Some cooking has gone to the restaurant, the canning factory, the delicatessen store, and the soda fountain, while most baking is done in bakeries. A considerable amount of laundering is now done in factories using steam or electric power. The family living in an apartment in a modern city engages in little economic production except for processing food and cleaning house.

Concomitantly the family has lost other functions, notably the education of the children which has passed in large part, for children over six years of age, to the school. Whereas formerly the household and the homestead were the school where the young learned most of what they needed to know, the schoolteacher has now become a part-time substitute or rival of the parent.

Also, the family formerly exercised a considerable protective function. The husband protected his wife and children from robbers, Indians, or wild beasts. A dependent relative was protected by the family, especially in the case of a female who had few outside occupations open to her. Finally, the young protected their parents when they became old. These functions have been transferred in large part to the state, which has an army, police, and old-age insurance. The law in many American states will not permit a parent to possess a revolver, and the modern husband is more helpless against a robber than he was in earlier times against wolves. Indeed the state with its child labor and compulsory school attendance laws has stepped in to protect the children against their own parents.

Another function of the family was that of providing leisure-time activities, since there were few places of commercialized recreation in farming communities. The home was the place for entertaining, for visiting. But now moving pictures, parks, playgrounds, athletic fields, clubs, bowling alleys, billiard rooms, race tracks, automobiles, and the city streets provide attractions which take the members of the family away from the home for amusement. The development of recreational agencies has diminished the proportion of amusements furnished by the family.

THE CHANGING COMMUNITY

During the Middle Ages the local community was small, a hamlet or village, and was characterized by very little formal government. In contrast to the situation in the large city today, the problems of government were not great. Everybody knew everyone else and what he had in the way of property. So even if one citizen stole from another he could not use property without everybody knowing it. This would not be true for outside robbers, of course. Each person also knew what the other person did, hence behavior was under close scrutiny of neighbors. Gossip and the value of reputation were most excellent policing devices. The village was thus a "primary group" that regulated a good deal of activity without the use of any appreciable amount of governmental machinery. Much education of children and the formation of their personalities resulted almost automatically and unconsciously from the play of children in villages and from the operation of various group pressures regarding conduct.

The village still does this kind of regulating. But there has arisen the large city, and in industrialized nations at least as many people live in large cities as in villages. In the Middle Ages there were a few great cities but the proportion of the population living in them was very small. In a large city the citizens do not know one another, even such close neighbors as those living in the same apartment house. The population moves frequently, approximately every two or three years in the large cities of the United States. Hence there is much anonymity of behavior. Personal property is easily hidden from the assessor. Criminals find a large city the best hiding place. Police and government regulations about cleanliness, health, and traffic, are developed to provide services that are rendered more or less automatically and unconsciously by the group forces of the small community.

THE TRANSFER OF FUNCTIONS TO GOVERNMENT

In the Middle Ages government in the small local community needed little machinery. Government in larger areas covered chiefly the provinces, over which a nobleman ruled. In wartime he exercised a good deal of authority. Nationalism as it is known today was just beginning, but no such vast array of functions was exercised by government then as now. In recent times, particularly in the twentieth century, local and central governments have been extending their activities into a great

variety of fields. Government, either of cities or of the whole nation, has taken over the functions of education, health, insurance, policing, furnishing relief and work to the unemployed, and providing recreation, caring for functions which were formerly performed by the family or the church. With regard to industry, governments now regulate those industries the price of whose products is of great concern to many other businesses and to a large body of individual consumers. Such businesses are railroads; electric light, gas, and water companies; and banks. Modern government also exercises certain controls over industry in the protection of workers concerning such things as accidents, sanitation, the work of children and women, and sometimes wages and hours of work. The state, excepting the communistic type, has not gone extensively into the field of production, although most governments undertake some slight production of goods. The state has no such dominant control of functions regarding production as the family possessed in the period of domestic economy, but even so, it seems fair to say that many functions of control and regulation of industry have been shifted from the family to the state. The socialistic trend of the state is thus seen to be due in part to the decline of the family.

THE ADDITION OF FUNCTIONS TO INDUSTRY

In the Middle Ages the economic organization outside the family was slight compared to what it is today. There were markets, but they were crude — often merely plots of ground where traders placed their wares to be bargained for and exchanged — and very different from modern warehouses and stores. The pawnbrokers who weighed out gold on scales possessed practically none of the facilities of the modern bank. Transportation was over very bad roads, so that it was not possible to cover as many miles in the course of a whole day as an automobile will now make in half an hour. From such beginnings have come the great economic instruments of today such as factories, railroads, department stores, banks, and credit systems. These institutions have assumed the functions of production and distribution which previously were largely possessed by the family.

Although the functions of industrial organizations are largely economic, in some instance where stores or factories engage in welfare work or have company unions they may assume some educational, health, or protective functions. Again, certain industries or groups of them take on quasi-governmental functions. Many industrial plants, transportation com-

panies, mines, banks, and stores employ private guards who behave much as public police do. In certain mining towns the company police become an organization of considerable importance in the lives of the miners. Industries also maintain lobbies around legislative assemblies in order to secure favorable legislation. Some industries, as for instance the electric street railways, are forced in the interests of self-preservation to keep a close watch over what the city councils and state legislatures do regarding franchises and rates.

SHIFTS OF FUNCTIONS BETWEEN INSTITUTIONS

This brief review of the four major social institutions during the past few centuries in the western world shows that the family and church have been losing functions from their complex of activities. On the other hand, two others, industry and the state, have been adding to their functions. The church has yielded functions in large part to government, while functions of the family have been shifted to both the state and industry. The functions of the village as a face-to-face group persist in villages still, but in modern cities these automatic community functions have given way to formal government. This does not mean, however, that the great growth of the state, industry, and the minor associations is due wholly to the transfer of functions from the family, church, and village. Industry has grown in its own right, by virtue of invention in the field of technology. Moreover, the growth of technology, industry, and population has forced the growth of government. Likewise, the single-purpose associations have themselves expanded the particular functions they exercise far beyond what they were before.

New Institutional Functions

In the immediately preceding paragraphs it was shown how social evolution has shuffled functions and redistributed them among four important social institutions. Institutions have risen and fallen in the long course of written and unwritten history as they have gained or lost functions.

But the gain and loss of functions by institutions is not wholly a matter of shifting functions back and forth between them. For new functions are added and old ones lost. The family in the western world no longer practices infanticide. That function has not been transferred to any other institution; it has been abandoned. So also the family no longer manages

slaves; slavery has been prohibited. That function has been lost to the family, not transferred.

Similarly, institutions have acquired new functions. The state has added the function of regulating communication by radio. Definite wave lengths are assigned to different stations, and a large number of regulations have been ordered in the United States by the Federal Communications Commission. This function did not exist before the creation of this commission and naturally could not have existed before the invention of radio. Likewise, the Federal Deposit Insurance Corporation is a new function, since deposits in banks were not insured against the failure of banks before.

As to what proportions of the functions of the state today were transferred from other institutions and what per cent are new, no one has ever made an inventory. Perhaps there is no great need for doing so. If such statistics were ever compiled, they would depend somewhat on the definition of new functions. Thus, insurance is a function possessed by industry. The insurance of bank deposits by the state, it might be argued, constitutes a transfer of part of the insurance function from business to the state. Or, if the emphasis is on the insurance of bank deposits against bank failure, not robbery, the function appears as a new one. The broader the definition of function, the less is the likelihood of there being a new one; the more detailed the definition, the larger the number of new functions there will be. If we speak of the function of insuring bank deposits as one of protection, then the appearance of the type of protection provided by insurance is not new, since it is after all only a function possessed by some social group since the beginning. If we speak in such detail as insurance of bank deposits of only a certain size against loss by bank failure, then nearly every change of function, even if only through transfer, has a new element in it.

But classifications and distinctions are not made just as a mental exercise. They have their uses. One is to think of a certain set of general functions that "men live by," as Richard Cabot [1] phrased it. Such are love, play, work, worship, protection, education, and fighting. These general functions are common to institutions in all cultures. Recreation, thought of as a sum total, was at one time supplied largely by the family and by religious ceremonials. At the present time, private industry through commercialized recreation manages a larger share of this general function and the family a smaller share. In this sense, there appears to

[1] RICHARD CABOT, WHAT MEN LIVE BY (Boston: Houghton Mifflin Company, 1914).

be a transfer of a portion of the total functions from family to industry.

Another useful idea in the conception of institutional change is the growth of function. When this is what one is interested in, then there is not so much concern about the transfer of functions, or the division of the field between the different institutions, as there is in the new functions viewed in detail. Thus, if there is interest in the regulatory function of the state in regard to human welfare, then the regulation of prison labor, the safeguarding of machinery, or the prohibition of night work for women are seen as new functions rather than as transfers. One is not interested here in whether the family once protected its women at night. Rather the interest is that a new function of regulating the night hours of labor of women in factories has been assumed by the state.

The conclusion of this analysis is that in modern times many functions have been shifted away from the family, church, and local community to the state and industry and that the latter two institutions have experienced a great increase in functions, many of which when viewed in detail are seen to be new functions.

Present Interdependencies of Social Institutions

In previous paragraphs the interrelation of the social institutions was discussed, largely for two reasons. One was to show that the interrelationship made it difficult to understand any one institution in a culture at a given time without understanding the whole culture, particularly if full understanding be desired. Thus, the Negro question in the South or in Brazil cannot be understood by outsiders who do not see its ramifications with the rest of society. The second reason for noting the interrelations of social institutions was to show that this intercorrelation prevented any clear definition of the evolution of an institution that would be true for all culture areas. Thus, the family does not always follow a succession of group marriage, polygamy, monogamy. The interrelationship of the family with other aspects of culture, such as religion, industry and the material culture, all in varying degrees of development in different culture areas, would prevent adherence by the family to an invariable evolutionary succession.

In modern society the interdependence of social institutions has a good deal of practical significance, for a change in one institution may affect other institutions. Some special clusters of interrelationships need to be mentioned because of their great importance at the present time. Some

of these are the interrelations of social institutions with the business cycle, the city, war, and technology, and also the interrelations of the state and industry. Chapter XXVI, "Social Effects of Inventions," will discuss the interrelations of technology with the various parts of culture. Chapter XVII, "Characteristics of Communities," showed how various social institutions within the community are affected by variations in the size of the community.

This matter of the interrelationship of institutions is an important part of sociology. Each of the special social sciences, such as economics and political science, deals with only one set of institutions. These special social sciences do not treat adequately the interconnections of institutions. Anthropology does this for the simple cultures but not for modern society. History generally concerns itself with unique events rather than institutions, hence not much on the interrelationship of institutions comes from the pens of historians. There is a need, therefore, for a sociology which shall be an over-all social science to the extent at least of treating in a broad way these interconnections of the various social institutions.[1]

The interconnections of the social institutions in the local community have always been close. They are probably just as significant in the village today as they ever were in the small community. But for a large area like the United States or Europe, probably never before have the interconnections between the different social institutions been so close and numerous as they are now. When Hitler makes a war gesture in Berlin, the farmers of Iowa, five thousand miles away, begin to plant more wheat. The reason for such close connection is the existence of more numerous contacts due to highways, shipping and air lanes, cables, wires, and radio waves. The résumé in the next section on the effects of the business cycle shows something of the extent of these interconnections.

THE INSTITUTIONAL EFFECTS OF ECONOMIC FLUCTUATIONS

Modern economic institutions experience "hard times" every few years. Business is not good. There are also periods of prosperity, even boom times. These periods alternate so that the ups and downs of business are called business cycles, though these cycles are far from being as regular as the cycle of the seasons during the year. These changes in business affect many different traits of culture.

[1] WILLIAM F. OGBURN and A. GOLDENWEISER, THE SOCIAL SCIENCES AND THEIR INTERRELATIONS (Boston: Houghton Mifflin Company, 1927).

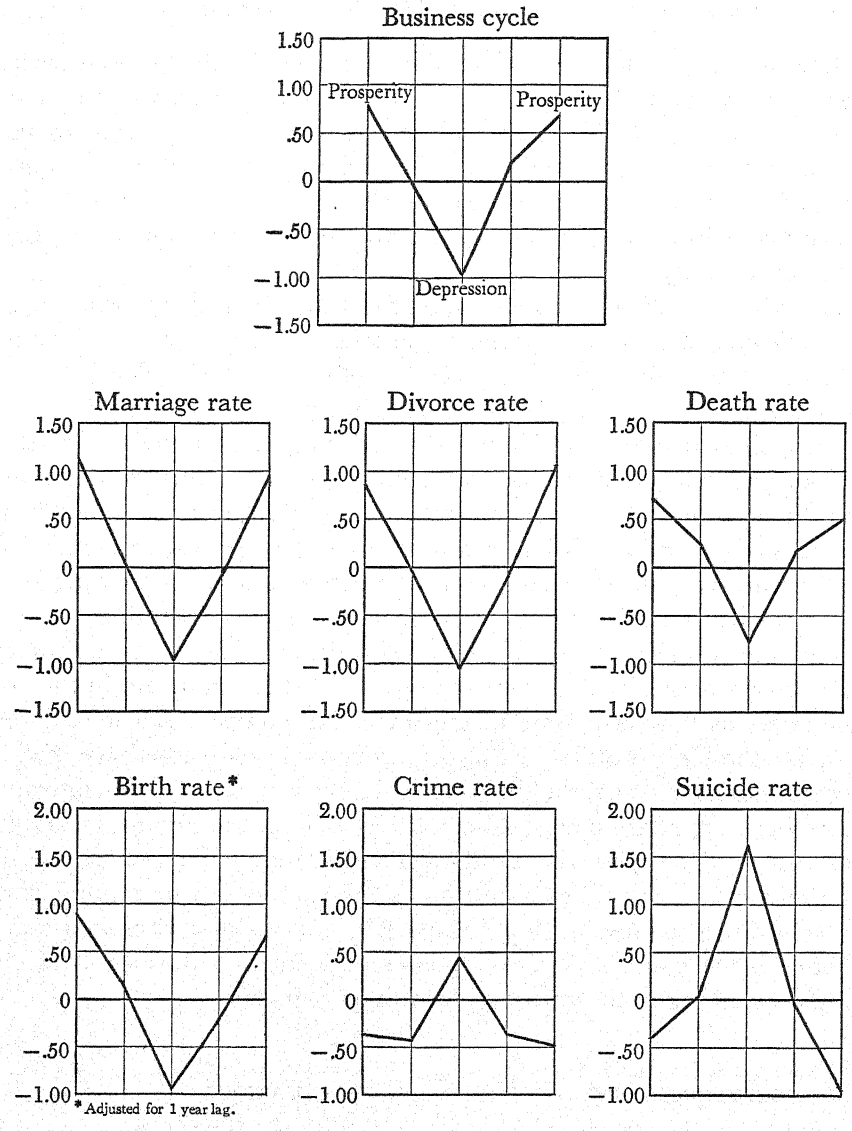


FIGURE 127. EFFECTS OF DEPRESSIONS ON SOCIETY

Social conditions change with the fluctuations of the business cycle. Having a business depression is like dropping a bombshell in society. There is hardly an institution or a custom that is not affected, showing very clearly the interrelationship of the economic factor with social conditions. The above chart shows a few such relations. The above business cycle is computed by averaging the business cycles from 1870–1920 in the United States for five periods: namely, the peak of prosperity, the half-way point in recession, the peak of depression, the half-way point in recovery and the peak of prosperity. Data from WILLIAM F. OGBURN *and* DOROTHY S. THOMAS, "THE INFLUENCE OF THE BUSINESS CYCLE ON CERTAIN SOCIAL CONDITIONS," JOURNAL OF THE AMERICAN STATISTICAL ASSOCIATION, *September, 1922.*

As regards the family, the business depression lowers the marriage rate, the birth rate, the divorce rate.[1] Severe depressions seem to increase the illegitimate birth rate; to cause a higher unemployment rate among men than among women; but to increase the unemployment rate more for married women than for single women; and probably to prolong the period of parental responsibility for children.[2] As to desertions and separations, there are no data available, but one may gather that they are affected by depressions also. The poorly integrated families suffer from the shock of depression more than the well integrated.[3] Families on relief move much more often than non-relief families.[4] The depression probably affects family attitudes but on this point little satisfactory evidence is available. Sample data suggest that the authority of the husband tends to suffer as a result of the depression.[5] Some handicraft industry is said to have been revived in families, but no data have been collected to show it.

The church does not escape the influence of depressions either. Most observers think that the depressions affect church membership, but it is not known how, since the data are not very good and have not been adequately analyzed. The Methodist and Congregational Churches have had a greater gain in membership in depressions.[6] Church attendance in the Congregational Christian Churches increased slightly during the depression of the early nineteen-thirties. Village churches show a marked decline in attendance from 1930 to 1936, but since the data are not available by years, it is not known whether the decline was less during the depression years 1930 to 1933 [7] than in the recovery years of 1933 to 1936. Church contributions declined greatly during the depression

[1] WILLIAM F. OGBURN and D. S. THOMAS, "INFLUENCE OF BUSINESS CYCLE ON CERTAIN SOCIAL CONDITIONS," JOURNAL OF THE AMERICAN STATISTICAL ASSOCIATION, 18:324–40, September, 1922.

[2] S. A. STOUFFER and PAUL LAZARSFELD, RESEARCH MEMORANDUM ON THE FAMILY IN THE DEPRESSION (New York: Social Science Research Council, 1937).

[3] ROBERT C. ANGELL, THE FAMILY ENCOUNTERS THE DEPRESSION (New York: Charles Scribner's Sons, 1936).

[4] R. S. CAVAN and K. H. RANCK, THE FAMILY AND THE DEPRESSION (Chicago: University of Chicago Press, 1938).

[5] ROBERT AND HELEN LYND, MIDDLETOWN IN TRANSITION (New York: Harcourt, Brace and Company, 1937), and MIRRA KAMAROVSKY, THE UNEMPLOYED MAN AND HIS FAMILY (New York: The Dryden Press, 1940).

[6] GEORGE P. DAVIES, "SOCIAL ASPECTS OF THE BUSINESS CYCLE," QUARTERLY JOURNAL OF THE UNIVERSITY OF NORTH DAKOTA, 12:107–22, January, 1922.

[7] E. DE S. BRUNNER and Q. LANGE, RURAL TRENDS IN DEPRESSION YEARS (New York: Columbia University Press, 1937), p. 305.

years, 1929 to 1933.[1] The reduction in income of the churches affected the benevolences slightly more than the preachers' salaries. The various activities of the churches appear to have suffered during the depression of the early nineteen-thirties. With declining income and with building debts that did not decline, the situation was not very favorable for expansion of activities.[2] The effect on evangelism is not known; if there was any increase it was not conspicuous in the nineteen-thirties. But since evangelism seems to have been on the decline for some time, there might have been a slight increase during the depression without attracting much attention.

Governments are affected by depressions, especially if the depression is severe. In the depression of the nineteen-thirties, the difficulty of raising money by taxation in local governments caused curtailment of some functions, especially in education. Economy programs became popular, but new obligations were assumed, particularly in the care of the unemployed. This obligation was too heavy for most local governments, and it was transferred in large part to the Federal Government. The Federal Government also put forth many efforts to lessen the shock of the depression and to bring about a revival of business. The activity of the Federal Government increased by a large percentage. A great many new boards and commissions were appointed to deal with problems of the depression.

These data indicate only certain major influences of the business cycle on certain social institutions. The minor influences which have in general not been studied so thoroughly are much more numerous. For instance, one study has listed in the neighborhood of 100 possible influences of business depressions upon education, such as changes in curricula, personnel, legislation, salaries, building, and attendance.[3]

Variations in the economic organization affect not only these major social institutions in countless ways, but also many social activities.[4] Crime tends to increase during depressions. Immigration is slowed up. Death rates are lower. Suicides are more frequent. Strikes are fewer. There is less drinking of beer and whiskey. The activities studied indi-

[1] S. C. KINCHELOE, RESEARCH MEMORANDUM ON RELIGION IN THE DEPRESSION (New York: Social Science Research Council, 1937).

[2] *Ibid.*

[3] The Educational Policies Commission, RESEARCH MEMORANDUM ON EDUCATION IN THE DEPRESSION (New York: Social Science Research Council, 1937).

[4] WILLIAM F. OGBURN, "THE FLUCTUATIONS OF BUSINESS AND SOCIAL FORCES," SOCIAL FORCES, 2:1–21, January, 1923.

cate that the economic institution is closely connected with many parts of culture. But the available studies probably indicate only a very small fraction of the total influences.

THE INSTITUTIONAL EFFECTS OF WAR

The preceding discussion of the business cycle gives some idea of how far reaching the effects of changes in the economic institution may be. Similarly, war shows how extensive variations in the activity of the state may affect the other social institutions.

War is an activity of the state. But today it is only possible for the state to undertake this activity with the co-operation of the economic institutions. The weapons of war must be fabricated; they are today a formidable array, including air bombers, tanks, heavy artillery, light artillery, hand grenades, machine guns, bayonets, explosive bombs, gas bombs and liquid fire, to name only a few. Man power is taken off peace-time work and placed in war industries, which include agriculture as well as manufacturing. There is hardly an occupation unaffected by an important war. Even an industry like commercialized recreation is manned from the point of view of war. If the government thinks that the morale of the soldiers and the nation are helped by the theater, then the theater is retained with a modified program. If not, it is sacrificed. In order to achieve these ends, industry is controlled one way or another.[1] Indeed, industry may be taken over by the state, as the railroads were run by the United States during the World War in 1917–18.

The family is affected chiefly by disruption, through the withdrawal of males of fighting age and the induction of women into industry to take the places left vacant by men. Bombing of civilians also breaks up families. The family is disciplined in many ways, such as in the consumption of food, in the use of light, and in what the members can wear. Though there are some war brides, marriage is delayed for many soldiers.

The church is less affected. But if the doctrines of religion are against war, then the preachers are prohibited from pacifistic utterances, and may even be placed in concentration camps. The activities of the churches in foreign missions are curtailed, and their program of social activities is concentrated on expressions of mercy for the victims of war. In practice the churches usually support the war efforts.

[1] GEORGE HARMAJA, EFFECTS OF THE WAR ON ECONOMIC AND SOCIAL LIFE IN FINLAND (London: Oxford University Press, 1933).

Schools for children are sacrificed last, because the generation that takes the place of the soldiers must have education. The institutions of higher learning, however, do not need to be carried on, and their program is restricted very seriously, but not wholly, for some of the older professors are not equipped for war services or war aids. The schools also are utilized for training soldiers. The search for truth is supplanted by control through wartime propaganda.[1]

The press is controlled. So is the radio. Freedom of speech is limited. The subjects of conversation are changed, and the community life is variously affected. In our day war is a sort of social bomb dropped on society, leaving scarcely a single social activity untouched. At one time warfare was carried on by mercenaries fighting in foreign territory, and the community life at home was not so deeply affected, but this has changed, for the world is now more closely knit together.

THE CLOSER UNION OF STATE AND INDUSTRY

We have seen in previous chapters how much both the state and industry have been growing, somewhat at the expense of the family, church and local community. We have also seen in studies of the business cycle and of war how much a variation in the state affects industry and how a variation in industry affects the state. Two such expanding institutions as the state and industry impinge upon each other. There is an overlapping of activities, if not a merging of them. For all these reasons, the problem of the relations of the state and industry is one of the major social problems of modern times.

The relation between government and the economic institutions has been a big issue for several hundred years. Some of the relationships of these two social institutions in the past have been noted in preceding chapters. It remains to examine some of the more recent trends in these relationships.

For a time the mercantilists believed that the state should play a dominating and widespread rôle in economic affairs, especially with regard to trade and money. These attitudes were superseded by the *laissez-faire* policy that there should be as little relation between the state and industry as possible. The socialists took the opposite point of view, that the state, dominated by the workers, should own and operate all productive industry. Such doctrines have persisted for a long time.

[1] FRANCIS W. HIRST, THE CONSEQUENCES OF THE WAR TO GREAT BRITAIN (New Haven: Yale University Press, 1934), Book II, chap. I, "Social and Moral Consequences."

Actually various relationships between state and industry have developed, as is seen in democratic England, France, and the United States, Soviet Russia, Nazi Germany, Fascist Italy, and co-operative Sweden. These various types will now be reviewed.

The relations of state and industry in the large democracies. The relations between state and industry are similar in the United States, France, and England, and differ considerably from those in Germany, Italy, and Russia. There is a measure of control over the banks and credit institutions in these democracies. Private industry is financed by non-governmental funds in all these countries, except in periods of crisis and except in certain industries such as hydroelectric plants and low-cost housing. In France, the railroads, telephones, and telegraphs are state-owned. In all these countries there are strong labor unions which exert a force in shortening hours of labor, raising wages, and improving working conditions. There is also much the same type of social legislation regarding industry.

In the United States, the government has sought, through the Sherman Anti-Trust Act and through the Federal Trade Commission, to break up monopolies and to prevent their development. In the case of the railroads, the monopoly principle was accepted before the coming of the automobile, but the state, instead of taking over the railroads, regulated the rates through the Interstate Commerce Commission.

The ideology back of the American system is private capitalism of the free enterprise type, with some aid from the government in regard to banks, railroads, airplanes, tariffs, consulate services; and also with some restrictions upon industry of the social legislation type regarding child labor, women's work, and healthful working conditions. American industry would like to have as little supervision by government as possible. In 1933, Mr. Gerard Swope [1] of the General Electric Company proposed before the United States Chamber of Commerce the following program of industrial self-government, thus attempting to lessen the need of regulation by the state.

> . . . the members first shall subscribe to a code of ethics in regard to what constitutes fair competition;
> second . . . they shall adopt a system of uniform cost accounting and uniform periodical reports to their stockholders and to the Federal Government;
> third . . . members of each association shall adopt comprehensive and

[1] Quoted from THE NATION'S BUSINESS, 21 (6):14, June, 1933.

co-operative plans for the protection of their employees, and the associations will arrange with each other for the transfer of these rights and benefits when employees go from one organization to another;

fourth . . . each association shall endeavor to stabilize employment as far as possible by requiring that each member shall either give assurance of employment, or build up reserves for periods of unemployment, to be contributed to by employees and employer.

Then the association will ask the Government to recognize its organization, that the members may agree on the co-ordination of production and consumption, with an opportunity for the Government to review the acts and agreements of its members. If such acts are not in the public interest, they must cease — subject to court review — but the members should not be subject to criminal prosecution and/or triple damages, unless the practice complained of is continued.

The private industries like to use the government for such aid as they may require and thus they try to control or dominate that part of government which may be of use to them. They prefer this situation to having the state dominate them.

The ideology of most American economists is much like that of the industrialists, except on one important point. The economists insist upon the free play of competition.[1] The industrialists under the National Industrial Recovery Administration in 1933, on the other hand, passed many acts lessening competition, and did little or nothing against price raising by agreements. Economists in general in the United States probably favor government intervention in business for the protection of competition. Some few economists who favor a planned economy are inclined to think the forces toward big monopolistic enterprises are difficult to turn back and rather welcome a good deal of governmental control and supervision in the interest of better planning of the system in the future.[2]

During the war years of 1917 and 1918 the American system departed widely from the picture just presented. The United States assumed an extensive control over industry. England and France did the same during the World War. But with the return to peace, the war industrial establishment was scrapped and a return to normality was effected.

In the depression years of the nineteen-thirties the Federal Govern-

[1] H. C. SIMONS, A POSITIVE PROGRAM FOR LAISSEZ-FAIRE (Chicago: University of Chicago Press, 1934).

[2] R. G. TUGWELL, OUR ECONOMIC SOCIETY AND ITS PROBLEMS (New York: Harcourt, Brace and Company, 1934).

ment made another wide departure from the existing pattern in an effort to aid individuals in distress and also to aid business during these low years. For these purposes a great many connections were made with business. These are illustrated by the following list of federal corporations created during the recovery period of 1933–36:

FEDERAL CORPORATIONS CREATED BETWEEN JANUARY, 1929, AND OCTOBER, 1936 [1]

Government corporations created between January, 1929, and February 1933:
- Federal home loan banks.
- Reconstruction Finance Corporation.
- Regional agricultural credit corporations.
- Stabilization corporations — cotton; grain.
- Textile Foundation, Inc.

Government corporations created between March, 1933, and October, 1936:
- Commodity Credit Corporation.
- Corporation of Foreign Security Holders (authorized but not formed).
- Federal Deposit Insurance Corporation.
- Electric Home and Farm Authority.
- First and second export-import banks.
- Farm Credit Administration group:
  - Banks for co-operatives.
  - Production credit corporations.
  - Federal Farm Mortgage Corporation.
  - Production credit associations.
  - Federal credit unions.
- Federal Home Loan Bank Board group:
  - Home Owners' Loan Corporation.
  - Federal Savings and Loan Insurance Corporation.
  - Federal savings and loan associations.
- National mortgage associations (none formed).
- Federal Prison Industries, Inc.
- Public Works Emergency Housing Corporation.
- Public Works Emergency Leasing Corporation.
- R.F.C. Mortgage Company.

[1] PROBLEMS OF ADMINISTRATIVE MANAGEMENT, Studies on Administrative Management in the Government of the United States, Number IV (Washington: 1937), p. 56. The recent development of federal corporations may be observed by comparing the above list with one given for 1926 in HAROLD A. VAN DORN, GOVERNMENT-OWNED CORPORATIONS (New York: Alfred A. Knopf, 1926).

Rural rehabilitation corporations.
Federal subsistence homesteads corporations (parent and subsidiaries).
Federal Surplus Relief Corporation (later Federal Surplus Commodities Corporation).
Tennessee Valley Authority.
Tennessee Valley Associated Co-operatives, Inc.
Virgin Islands Company.

The government, with the aid of a sympathetic Congress and a strong Department of Agriculture, has also been very active in aiding the farmers. Agriculture normally has few devices to help it bear the shock of depressions, and in addition there are too many farmers for their own economic good.

The trend in the United States across a long stretch of time has been toward a slight modification of the *laissez-faire* system and a further development of governmental aids to business and of regulation of business. However, the interrelations have not proceeded very far as compared with the conceptions of socialists or of economic planners, nor as compared with the situations in totalitarian states.

The Russian type of state economy. The theory of the economic system in Soviet Russia is such that private capitalists are dispossessed and production is in the hands of the state. The union of state and industry is virtually complete.

In practice, manufacturing and transportation are in general state functions. In 1937 about 85 per cent of the output came from state-owned enterprises. Distribution for a time was returned to private individuals, with some regulation. But at present, distribution is also in general a state function. The state controls foreign trade. Under this system, industry has rapidly developed under successive five-year plans. Some labor unions still exist in Russia, but their function is to afford a medium of expression for the grievances of the workers rather than bargaining and striking for higher wages.

Russia is largely an agricultural country. Perhaps two thirds of the workers are engaged in agriculture. In theory the state owns the land. In practice there is some private production, as in any non-communistic state. The state has, however, tried to break the power of the larger privately conducted farms. In 1937 the state owned more than 4000 large farms employing more than 2,000,000 workers, constituting about 8 per cent of the cultivated land.[1] For a large number of other farms

[1] MONTHLY REVIEW OF THE U.S.S.R. TRADE DELEGATION IN THE UNITED KINGDOM, 10:592, December, 1937.

there was a collective arrangement whereby a group of farmers worked an area, sharing according to the amount of work contributed.[1] Some of these collectives were serviced by tractor stations provided by the state.

The techniques of production are not greatly different in Soviet Russia from those in the United States. Russia began with the idea of having a money based upon days of labor, but returned to a medium of exchange much like that in other states. Both Russia and the United States use machines, mass production, scientific management. There is a highly developed system of division of labor in both countries. Both have railroads, motor highways, electric plants, coal mines. Since Russia uses money, it also has a price system. The details of the governmental budgets are not known, but the prices set by the government no doubt have some relation to the joint cost of production. With a developing industry there must be capital with which to build new plants, railroads, highways, and the like. This capital comes in part from the operation of the state economic system.

The Soviet system came into being as a result of a revolution, and the objective was to build a system on the plan laid down by the founder of "scientific socialism," Karl Marx. The workers wanted to take industry away from the capitalists and to run it for themselves through the medium of the state. The plan called for the abolition of the wealthy classes.

The German and Italian systems. The interrelations of the state and industry were somewhat different in Italy and in Germany, but by contrast with Russia and with the democracies, they may be treated together. In theory the fascist state is opposed to government operation of industry. Article 8 of the Italian Labor Charter of 1926 states: "The corporate state considers that private enterprise in the sphere of production is the most effective instrument in the interest of the nation." [2] The Nazi and Fascist parties fought the Communists, and their victories were victories of the middle and upper classes over radical workers. These classes wished to utilize the state for controlling communism and making an orderly society where private business could thrive.

In discussing the interrelations of state and industry in this chapter, we have no concern with the ideals back of the different forms except in so far as they help to explain the particular relationships that have resulted. One of the ideals that has played a part in shaping the form

[1] HANDBOOK OF THE SOVIET UNION (New York: American-Russian Chamber of Commerce, 1936), p. 224.

[2] BENITO MUSSOLINI, FASCISM: DOCTRINE AND INSTITUTIONS (Rome: Ardita, 1935), p. 135.

of the modern state is nationalism. The Communists are in theory internationalists, but in Russia the threats and attacks against them by other nations led them to assume a nationalistic form.

The National Socialists of Germany and the Fascists of Italy were from the beginning patriotic. The nationalistic ambitions of both Germany and Italy led them to increase the might and power of the state over the economic institutions. This patriotic feature led these states to emphasize citizenship in the state above membership in a particular social class. To win the support of the working classes, who were forbidden to strike, state-controlled unions were set up, much like the company unions in the United States. The government in Germany, through this one big company union, engaged in welfare activities, such as giving vacation trips to workers. At the same time the power of the aristocrats of wealth was trimmed down considerably by using their income and wealth for the purposes of the state.

In Italy, industry had an elaborate organization. The basic unit was the syndicate for employers and also for employees. These syndicates existed for all callings. They were organized into national federations which made collective contracts. These federations in turn were organized into nine confederations which met in "corporation," such as the Corporation of the Chemical Industries, to give advice on the national economy.[1] This organization represented no particular union with the state. Actually, the leaders of these industrial organizations were active in the Fascist Party. Also the Ministry of Corporations, a state body, had supervision over the syndicates and corporations. These relationships are diagrammed in Figure 128.

The Italian state acquired the measure of control it had over industry partly through its control over finances, for the government was in control of the banking system. By control over investment funds the state exercised, through a network of boards, restrictions on the creation of new plants, plant extension, management, prices, and competition.

In Germany, the control of the state over industry was more directly a product of preparation for war. A major problem was to go as far as possible toward freeing Germany from dependence on imports. To this end, the state created industries for making oil from coal, wool from wood and milk, and rubber from coal and chalk. The German state, like the Italian, controlled credit and created an office of price control,

[1] Royal Institution of International Affairs, THE ECONOMIC AND FINANCIAL POSITION OF ITALY (New York: Oxford University Press, 1935), pp. 10–18.

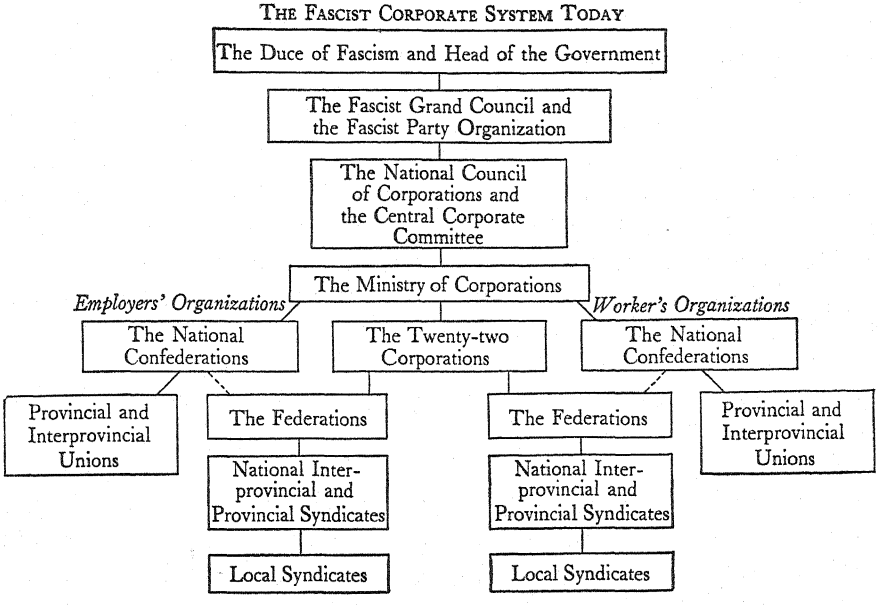


FIGURE 128. THE FASCIST CORPORATE SYSTEM

From WILLIAM G. WELK, FASCIST ECONOMIC POLICY (*Cambridge: Harvard University Press, 1933*), *p. 331. Reprinted by permission of the President and Fellows of Harvard College.*

which exercised supervision over the details of production, such as wages. Labor was forbidden to change jobs without consent of the state.

The evolution of Fascism and of National Socialism were greatly speeded up by preparations for war. Preparation for war is an expensive undertaking and calls for the expenditure in a modern large state of many billions of dollars a year. This money comes, of course, from where all wealth originates: production. Germany and Italy skimmed off the profits of industry to run the vast undertakings of the state. They were able to do this because of the force of the patriotic fervor of nationalism. Patriotism is supreme in war; and Italy and Germany were preparing for war. National honor and vanity, they felt, had been wounded by the Versailles Treaty. War and the conditions which lead to the preparation for war are favorable situations for the state to get the whip-hand over industry and make it bow to the will of the state, even though the ultimate objective may be the winning of more favorable economic conditions for industry. Even in the democracies during wartime a union of state and industry is forced, no matter which of these two great insti-

tutions takes the initiative. Wartime is also a period when class lines are drawn less tightly in the interest of patriotism.

The nature of the relationship between state and industry in Germany and Italy was much like that of France and England in wartime. Prices were regulated. Foreign trade was controlled. Unions were forbidden to strike. Credit was dominated by government bonds. The government went into production directly if such a step was necessary. The state managed the distribution of goods through private agencies.

The Swedish system. In Sweden, private capitalism exists much as in the United States, France, and England. There are, however, perhaps enough variations in that country to single it out for special mention. It has been signalized in the literature as a third direction which the evolution of industry and state may take, differing from both communism and fascism.[1] In Sweden, the principle of voluntary co-operation has been evoked in working out the relationships of state and industry. Sweden is a country with no ambitions to go to war and with definite desires to keep out of war. The opportunity of imposing the state's authority on industry does not exist as in wartime. The interrelationships of industry and state have been worked out in a step-by-step procedure, rather than in a quick *coup d'état.*

The nature of the relationship of state to industry is varied. Perhaps the most common type is state ownership in part, with a good deal of private operation. In iron mining and smelting, the state owns big deposits, but 50 per cent of the stock of the company that exploits the mines is owned by the government. The government is also paid a royalty. The state owns 11,000,000 acres of forest and competes with private lumber industries, but also pays taxes to the local governments. The state owns six hydroelectric stations which are connected in one giant power system and is in competition with private electric power companies on such a basis, it is said, as to earn a small profit, despite extensive rural electrification. The state has a monopoly on liquor and tobacco, but there is a small issue of stock held by private individuals, whose dividends are, however, limited. The state names some of the members of the boards of directors. The monopoly is operated privately but primarily for the profit of the government. The state also has a partnership with private business in the radio. The state owns the telephone, telegraph, and railroad systems. Retail distribution is private, but about 50 per cent is in the hands of consumers' co-operatives, which

[1] MARQUIS W. CHILDS, SWEDEN, THE MIDDLE WAY (New Haven: Yale University Press, 1936).

control also about 10 per cent of wholesale trade. This feature of Swedish economic life is independent of the state. In co-operatives the profits are turned back to the affiliated members.

The Swedish system shows slightly more interrelation of state and industry than do France, England, and the United States, chiefly in the field of monopolies dealing with natural resources, such as forests and mines, and with public utilities, such as transportation, communication, and some housing. State-owned industries compete in some cases with private industry but not in such a way as to destroy private competition. There is a partnership between state and private owners, with the state limiting dividends and exercising some supervision over private operation. Norway and Denmark have practices similar to those of Sweden. The Swedish program has been overshadowed by the spectacular developments in the union of state and industry in Germany, Italy, and Russia, but Sweden's program may prove to be as important.

Possible relations of governmental and economic institutions. The evidence indicates several different systems of interrelation of state and industry. There is private capitalism, as found in the democracies of France, England, and the United States. Here the government has placed a few restrictions upon industry, at the same time extending certain aids to it. In Sweden, the modification of private capitalism by government has gone a little further, with interrelationships of a partnership or co-operative type extended to natural resources and to certain monopolies. In the Russian state there is the most complete union of state and industry, which has been approximated in Germany and in Italy, perhaps because of wars and preparations for wars. In these countries without democratic traditions the changes have come quickly and have proceeded to extreme lengths.

There are thus a variety of systems. It is possible that still further varieties may be worked out, for cultural patterns and social institutions are seldom so rigidly determined that one and only one type is decreed. In any case, the world shows a great growth of the state and a great growth of private industry and, furthermore, an increase in the interrelations between the two, proceeding in some localities very slowly, in others quite rapidly. In some situations the government acts as a handmaiden to industry. But more recently the state has been assuming a more dominant position, a development which is greatly favored by war and nationalism.

QUESTIONS FOR DISCUSSION

1. What are Spencer's and Morgan's theories regarding the evolution of social institutions? Evaluate these theories.
2. Why is it more reliable to rank cultures according to their material rather than their non-material traits?
3. Why may an institution persist even though it loses many of its functions?
4. Which major social institutions have been losing functions? Which have been gaining?
5. Which is changing more rapidly, the structure or the functions of
   (*a*) the state
   (*b*) the church
   (*c*) the family?
6. What are some of the interrelationships of the following institutions at the present time in our culture:
   (*a*) industry and church
   (*b*) church and state
   (*c*) school and family
   (*d*) commercialized recreation and the family?
7. What is responsible for the transfer of educational functions from the family and church to the school?
8. What is responsible for the rise of new institutional functions?
9. Does the church at the present time exercise any functions which it did not previously have?
10. How do fluctuations in the business cycle affect
    (*a*) family life
    (*b*) the church
    (*c*) government?
11. What is the relation of state and industry in
    (*a*) the United States
    (*b*) Russia
    (*c*) Germany
    (*d*) Sweden?

    Which arrangement is gaining ground most rapidly?

TOPICS FOR REPORTS

1. Make a chart showing the characteristics of the principal social institutions at various stages of the evolution of material culture.
2. The interrelationship of social institutions in the culture of India.
3. The changing functions of the school.
4. A comparative study of the functions of the church in one of the original American colonies and in the same state today.
5. The interrelations of church and state in Russia, Germany, and England.
6. The interrelations of social institutions in Eskimo society.

SELECTED READINGS

BEARD, C. A., AN ECONOMIC INTERPRETATION OF THE CONSTITUTION. New York: The Macmillan Company, 1913.

An able analysis of the rôle of economic and social class factors in the determination of the original framework of our Constitution.

BENEDICT, RUTH, PATTERNS OF CULTURE.

Especially chapter III, "THE INTEGRATION OF CULTURE." *Supports the thesis that certain values at the core of a culture give unity and a distinctive "pattern" to the whole. The Zuni, Dobuan, and Kwakiutl societies are used as illustrations. A brilliant interpretation.*

COOLEY, C. H., SOCIAL ORGANIZATION, Part II, "COMMUNICATION."

An interpretation of the significance of changes in communication for society at large. Penetrating and well written.

JUDD, C. H., "EDUCATION;" RECENT SOCIAL TRENDS IN THE UNITED STATES, vol. I, chapter VII.

A review of changes in the educational set-up in the United States since 1875, in the light of prevailing social conditions.

LINTON, RALPH, THE STUDY OF MAN, chapter XX, "INTEGRATION."

An incisive analysis of the mutual adjustments existing between culture elements, and the conditions under which a change in one part causes a disturbance in other parts. Cites the far-reaching effects on the culture of the Tanala of western Madagascar caused by the introduction of the cultivation of irrigated rice.

LYON, L. S., M. W. WATKINS, and V. ABRAMSON, GOVERNMENT AND ECONOMIC LIFE, vol. I. Washington: The Brookings Institution, 1939.

The development and current issues of American public policy regarding the relation of government to industry. Considers both the implementation and regulation of economic life by government in terms of underlying social forces.

RESEARCH MEMORANDA ON SOCIAL ASPECTS OF THE DEPRESSION. 13 titles. New York: Social Science Research Council, 1937.

The volumes show how the influences of an economic depression permeate the entire social structure, and treat of the influence of the recent depression upon crime, education, family life, internal migration, minority peoples, recreation, religion, rural life, social aspects of consumption, health, reading habits, relief policies, and social work.

WALLAS, GRAHAM, THE GREAT SOCIETY. New York: The Macmillan Company, 1914.

A stimulating book, showing the very close interrelationships of many parts of our developing "world community" (great society) and the social significance thereof.

WEBER, MAX, THE PROTESTANT ETHIC AND THE SPIRIT OF CAPITALISM (translated by TALCOTT PARSONS). New York: Charles Scribner's Sons, 1930.

Develops the hypothesis that the rise of individualistic Protestant ideology furnished the impetus for the growth of capitalism in the western world. An interesting interpretation, but neglectful of economic and technological factors.

PART VII

SOCIAL CHANGE

THE STUDENTS who read these lines will live, on the average, about forty-five years more.[1] Forty-five years hence, business will be different from what it is now. Government is also due to make important changes. Even religion and the family will not remain the same during this period. We know they will change because it has been shown in the preceding section (Part VI) that these major institutions are changing more rapidly now than before. The student should be very much interested in trying to learn what society is going to be like during the period of his lifetime. Such an interest takes us into the study of social change itself as contrasted with a description of changes that have already taken place.

Since the whole superorganic is in process of rapid change, we want to know why it is changing, and what are the processes of change. In 1906 Rivers [2] wrote a book describing the culture of the Todas, a people of India whose livelihood comes from the buffalo. In the appendix to this book there is an account of the culture of the Todas three hundred years earlier, written by a Portuguese missionary. It shows that very little change has taken place in three hundred years among the Todas. In the community where the reader lives, however, there have been tremendous changes in three hundred years. Why has there been so much change in the United States and so little among the Todas?

In Part VII an attempt is made to supply the answer, in so far as research

[1] LOUIS I. DUBLIN and ALFRED J. LOTKA, LENGTH OF LIFE (New York: The Ronald Press, 1936), p. 346.

[2] W. H. R. RIVERS, THE TODAS (New York: The Macmillan Company, 1906).

has made it possible to do so. Chapter XXIV traces the processes by which culture grows and the manner in which it develops. There are forces that impede social change as well as those that foster it. Such obstacles to change are treated in Chapter XXV. When changes occur, their significance lies, of course, in the effect they have on social life. That changes in one part of culture may be followed by changes in other parts may be obvious; not so evident are the manner in which cultural influence is exerted and the profound degree of the effects, as will be brought out in Chapter XXVI, "The Social Effects of Inventions."

The direction of social changes is of great importance. Change is inevitable, but it is not always favorable. There are forces at work in every society leading to the breakdown of the established organizations and to the disruption of their functions, producing what are known as social problems. The disruption of the economic organization, for example, brings unemployment and economic misery. The nature and operation of some of the factors responsible for such disruption are considered in Chapter XXVII, "Social Disorganization." Concomitantly, however, certain counter forces are operative in the community. These forces effect working adjustments which permit the group to carry on. Unemployment, for instance, is countered by relief, insurance, vocational training, and other aids. Many individuals in modern society are interested not only in easing the strain so that social life may be maintained, but in improving it as well. The idea of social progress is thus introduced. The question of whether man can build a better world in which to live is a fundamental one. It is considered, along with other problems of social reconstruction, in the concluding chapter of the book, "The Adjustment of Man and Culture."

XXIV. THE GROWTH OF CULTURE

How Culture Grows

IF YOU STAND on the top floor of a skyscraper and look down on the roaring city below, you will see buildings, street cars, buses, ships, automobiles, railroads, telephone lines, bridges, stores, libraries, colleges, churches, factories, theaters, and homes. If, being curious, you should ask how all this came to be, the answer you would probably get is that it was all created out of the brain cells in the mysterious gray matter that fills the skull of egotistic man. This is a deceptive answer, for these things were not created all at once. Even though the city may have been a barren plain two hundred years ago, it required a half-million years, more or less, to create what you see below. For the structures that fill a city rest on some inventions made many thousands of years ago, such as the screw and the lever, which were devised in the Ice Ages or earlier.

Culture accumulates. Such a long period of growth means that culture accumulates. The city spread out around the skyscraper exists, then, because culture accumulates. The early toolmaker who flaked stone by pressure improved on the method of flaking by percussion. To his improvement were added successively, after a long interval of years, methods of pecking, grinding, chiseling, and boring. Eventually bone was used for making tools; antlers and ivory were added to the stock of materials. Then came the hammering of the metals which are found in the pure state, such as copper and gold. To these were added, comparatively recently, the reduction of ores by fire to get the pure metal, like iron, or to make alloys like bronze. Thus culture slowly accumulated.[1]

This principle of growth may be expressed in the language of mathematics as

$$y = a + bx, \text{ or } y = e^x,$$

or

$$y = c + \frac{k}{1 + e^{a + a_1 x_1 \cdots}}$$

[1] N. C. NELSON, "PREHISTORIC ARCHAEOLOGY," chap. v in FRANZ BOAS *et al.*, GENERAL ANTHROPOLOGY.

but for our purposes here it may be expressed more simply in the nursery rhyme:

Little drops of water, little grains of sand
Make the mighty ocean and the mighty land.

How culture accumulates in modern times is shown by the data in Chapter XX on the growth of the functions of the state. Another illustration is the number of accumulated inventions on the plow sulky. It is

TABLE 36. NUMBER OF PATENTS ISSUED FOR THE PLOW SULKY *

Years	Cumulative Frequency	Years	Cumulative Frequency
1855–59	35	1895–99	499
1870–74	64	1900–04	515
1875–79	195	1905–09	530
1880–84	359	1910–14	541
1885–89	439	1915–19	546
1890–94	483	1920–23	549

* Adapted from F. STUART CHAPIN, CULTURAL CHANGE, p. 359.

not known that all of these patents were put to use, but even if only a portion of them were used, accumulation is indicated.

Growth by addition. The principle of the growth of culture is the same as that of all growth. If the number of new elements added exceeds the number of old elements lost, there is growth; otherwise culture either remains stationary or declines. This is the way the body of a child grows, through the addition of a number of new cells greater than the number that die. In the case of culture, the new element that is added is termed an invention when it first appears. After it is in use it is referred to as a culture trait. In ordinary usage an invention is regarded as something mechanical, an object made of some solid substance. But the term may be extended to include social inventions, for example, a new organization like the juvenile court, or a new folkway like dancing the tango. There are other inventions in the non-material culture, such as the essay in literature. Moreover, as has previously been shown, any new object of material culture, like the automobile, may call for new techniques and processes in its manufacture, new group habits in its use, and new attitudes toward it or beliefs regarding it.

The growth of the social heritage may occur either by an increase in the frequency of the use of existing elements, or by the addition of new elements irrespective of the frequency of their use.[1] Culture is, for ex-

[1] For further discussion of the accumulation of culture the student is referred to F. S. CHAPIN, *op. cit.*, chapter II, "THE ACCUMULATION OF CULTURE."

ample, like foreign trade, which may be said to grow if the same items are bought and sold in increasing volume or if more new items are added to the foreign market than are withdrawn. However, in the discussion of the growth of the superorganic which follows, the reference is to growth by addition of new elements, unless otherwise stated. The growth of which we shall speak, then, is an accumulation of the elements of culture.

Relatively few elements are lost. Once an invention is made and its usefulness demonstrated, it is not likely to be lost, because language enables the art to be transmitted from one generation to another. Still there is no gainsaying the fact that some losses do occur. Ancient methods of making stained glass are said to have been lost.[1] The making of armor is another example, and still another is the Egyptian process of embalming. Even the art of making and using the useful bow and arrow was lost among the Polynesians, except for its retention as a toy for children.[2] Save for what has been preserved in written form, there has been a great loss in the traits of hunting cultures, a loss of thousands of different techniques for tracking, baiting, snaring, trapping, killing, cleaning, and preparing skins of a wide variety of wild animals. These losses are slight, however, compared to the whole stock of human cultures.

Loss of culture traits is not always readily determinable. An art may be described in a book in a library, though it may not be in practice anywhere. Similarly some skill, like making arrow heads from flint, may be practiced by only a few individuals in certain areas. The loss of culture traits may occur in a particular area more frequently than the loss occurs for the world as a whole.

There are displacements of culture, too, but if each new invention meant only a substitution for something already in existence, then we would have culture change rather than culture growth. The expansion of culture requires that a new invention add something to the invention it replaces.

The use of the bone implements was added to the stone cultures, but the metals in large part rendered both the stone and bone implements obsolete. In a similar manner automobiles have displaced horses in city streets, barring exceptional cases like their use in pulling milk wagons. A horse and buggy on Fifth Avenue would be a strange sight today, but the horse is not wholly replaced by the automobile, especially in rural life.

[1] JOHN BECKMAN, A HISTORY OF INVENTIONS, DISCOVERIES AND ORIGINS (fourth edition, revised and enlarged) (London: Henry A. Bohn, 1846), vol. I, p. 137.

[2] A. L. KROEBER, ANTHROPOLOGY (New York: Harcourt, Brace and Company, 1923), p. 182.

Even though there is some replacement, yet there is also accumulation. Sometimes one invention is replaced by several. The screw driver, for instance is being replaced in many industries by different kinds of welding.

Accumulation in non-material culture. The process of accumulation is easily seen in material culture, but its operation in the realm of non-material culture is not so obvious, except in the case of scientific discoveries. Among customs and ceremonies and many other traits of non-material culture, the replacement ratio may be higher than it is with inventions in the material culture or scientific discoveries in the non-material sphere. Although it is possible that in earlier times new customs and rituals were elaborated to an even greater degree than material inventions, such is not the case today.

The principle of the accumulation of the social heritage means that the people born today in a modern city come into an inheritance far richer than that possessed by those born a century ago. Similarly the Europeans of A.D. 1500 inherited a more extensive culture than Europeans in 1500 B.C. The culture of the Europeans of A.D. 1500 was a gift, not their own creation. A hundred years hence our descendants will inherit material culture that has grown by accumulation to a size much beyond that which we inherited.

THE PRINCIPLE OF CONTINUITY

The growth of culture cannot be appreciated without recognizing that every new culture trait is the outgrowth of existing culture traits. Every invention is the result of an evolutionary process. A modern cannon that can throw an explosive a score of miles and hit a target has an inventional history. The steel of which it is made is an improvement over iron. The nitroglycerin is an improvement on powder. The application of mathematics and physics to trajectories is an improvement over aiming at a visible target. Steel-making in turn has a long inventional history, as has also nitroglycerin and the knowledge of the movement of trajectories.[1]

The breech-loading gun is an improvement over the muzzle-loading gun. The gun that can fire a number of shots in quick succession is an improvement over the gun that could shoot only one shot, whether loaded from the muzzle or the breech. These developments required centuries. The early cannon of the thirteenth and fourteenth centuries

[1] BRADLEY A. FISKE, INVENTION, THE MASTER KEY TO PROGRESS (New York: E. P. Dutton and Company, 1921), chap. v.

were improvements on missile-throwing machines, without the force of powder, that were used in storming castles of medieval times. Powder was the outgrowth of experiments with saltpeter and was an adaptation from other fields. Powder had been used for a long time in China for "fire works." Missile-throwing techniques were utilized in the ancient world around the Mediterranean Sea. These devices for hurling trace back to the bow and the sling and to the use of the lever. The crossbow was the result of mechanical force used to pull back the string on a bow too powerful to be shot by hand. So it is that modern artillery traces back to the very early beginnings of culture hundreds of thousands of years ago.

It is true that to fabricate modern artillery, a munitions maker does not go through the evolutionary process that led up to the artillery of today. He can learn, no doubt in a comparatively short time, enough to construct a cannon. He can do this because the knowledge exists and has only to be learned. But the development of the knowledge that enables manufacturers to construct such a modern instrument of warfare required a period as long as the history of the superorganic itself. There is no adequate reason to think that modern man, without the benefit of culture, could acquire this knowledge in any quicker time.

This principle of continuity lends significance to the old adage "there is nothing new under the sun." A visitor to Paris sees the Arc de Triomphe, that magnificent and incomparably beautiful arch erected to celebrate the victories of Napoleon, and is moved to comment on the artistic creativeness of the French people. But the French did not create such a monument out of nothing. Further travels to other European cities show that many of them have beautiful arches. The Romans constructed them nearly ten centuries ago. The Greeks, we are told, festooned the gates to their walled cities to celebrate the return of their victorious soldiers. Triumphal arches have a history. Again, Fascism seemed to Americans a strange new thing when it flashed on the political scene in the nineteen-twenties; but that was only because we were not familiar with Italian history. The roots of Fascism are found in the traditions of the peninsula, just as the gun and the triumphal arch are not without antecedents, but may be traced through a long slow evolution. Nazism is not the creation of Hitler. Its origins can all be found in German traditions. The principle of continuity makes the historical approach a very important one. No social problem is understandable without some acquaintance with its history. There is a lesson also for the future; for

the things that are to come will grow out of what we have now.

Invention, then, is a step in evolutionary development. Any inventor who makes a significant improvement does so by virtue of the fact that he is standing on the shoulders of a huge giant, the human race since the beginning. "If I saw farther," said Isaac Newton, "'twas because I stood on giant shoulders."

THE PRINCIPLE OF CROSS-FERTILIZATION

The process of cross-fertilization is a further development of the idea that inventions evolve out of the known. Since parts of the social heritage, say, *A*, *B*, *C*, *D*, *E*, *F*, are not isolated and separate, an element or idea is often taken over from one part, say *E*, to be used in combination with the elements in, say *D*, to produce a new invention in part *D*. In the evolution of weapons of warfare, an idea — gunpowder — from that part of culture called chemistry was taken over into that part of

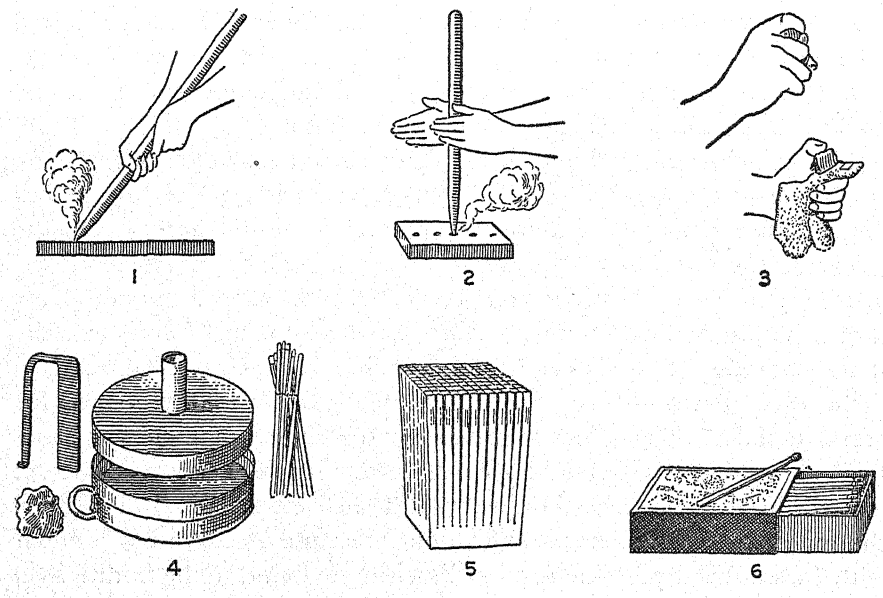


FIGURE 129. THE EVOLUTION OF THE MATCH

1. Stick in groove. 2. Fire drill. 3. Striking fire. 4. Tinder box, flint, steel and sulphur-tipped splinters. 5. First friction chemical matches, sold in blocks of 144 matches. 6. Box of modern safety matches. The modern match seems to be unrelated to the early fire drill, but history shows the modern match to be the direct outgrowth of the most primitive method of making fire. Sketches adapted from S. E. FORMAN, STORIES OF USEFUL INVENTIONS (*New York: D. Appleton-Century Company*), *chapter 1.*

culture known as mechanics, and the cannon for hurling missiles was invented. An idea from chemistry was also taken over to make the match. Fire-making prior to the match was achieved by striking flint and iron and using a splinter about the size of a match stick to take the fire off.[1] Then the splinter was dipped in sulphur to make it light more easily. Eventually, another chemical mixture was put on the tip of the stick that would take fire by rubbing, and the match was achieved. Darwin's theory of biological evolution was the result of a cross-fertilization from Malthus' theory in the field of economics. Malthus' doctrine was that geometric rates of increase of consumers are coupled with only arithmetic rates of increase of the food supply.[2] As a result there is intense suffering and the elimination of the weak. Here is the source of the doctrine of the survival of the fittest, which played so important a part in the theory of evolution. The theory of evolution, then, originated by virtue of the importation of an idea from economics into biology.

Cross-fertilization has long been recognized as a source of new ideas. Unfortunately, students sometimes keep the ideas they learn in sociology classes restricted to that field, and the ideas they learn in biology classes within the confines of that discipline. The departmental divisions in universities and colleges often erect barriers around each discipline which are a hindrance to the free flow of ideas from one subject to another.

DIFFUSION

The new ideas for inventions may come not only from different parts of the same social heritage, but also from different cultures. The transference of culture traits from one area to another or from one part of culture to another part is called diffusion.[3]

In order to get a correct picture of how civilization has come to be what it is, it is important to note that culture is confined to certain areas where groups of people live. Culture grows in small local areas, rather than as one great culture for the earth as a whole. There is a German culture and a French culture. The whole earth may some day become one culture area but that time is far off. The various culture areas are, however, not entirely separate; they are usually more or less in contact with each other. This means that inventions made in one place may be taken else-

[1] E. E. BURNS, THE STORY OF GREAT INVENTIONS (New York: Harper and Brothers, 1910).

[2] See Chapter XVI.

[3] A. L. KROEBER, ANTHROPOLOGY, chap. VIII, "DIFFUSION," pp. 194–215. (General statement with illustrations.)

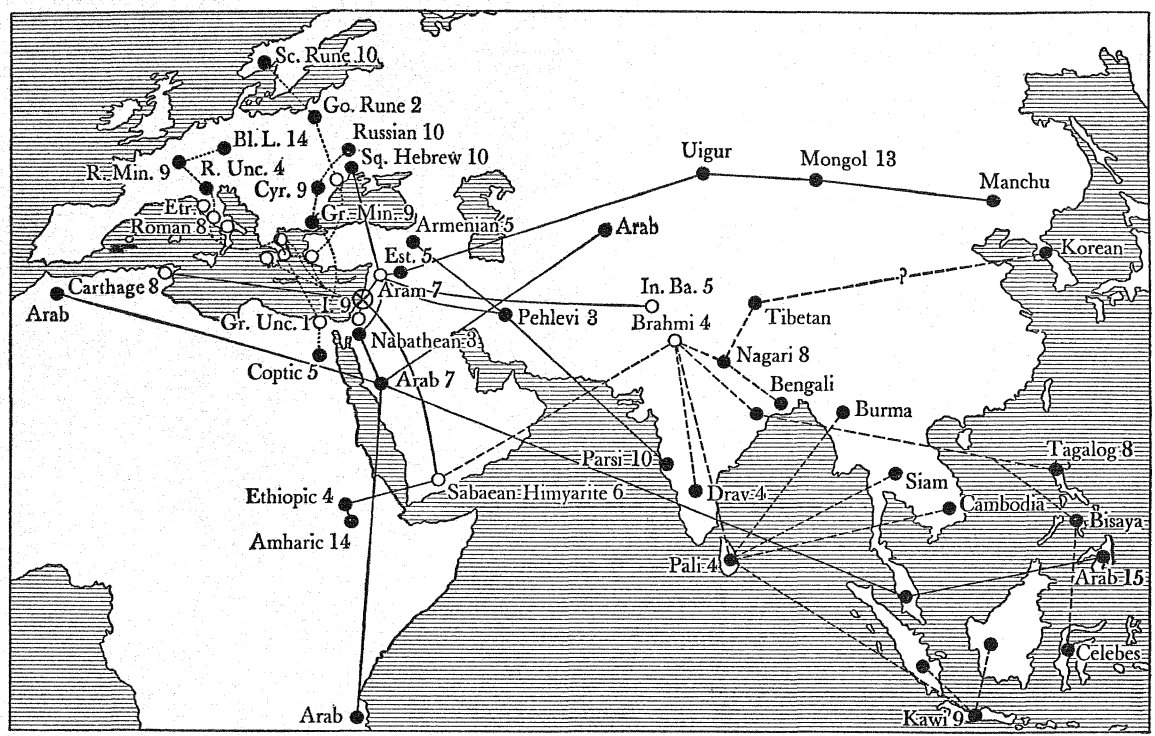


FIGURE 130. THE SPREAD OF ALPHABETIC WRITING

Alphabetic writing originated in Phoenicia in 1100 B.C. and spread from there outward to the outlying places on the Pacific and Atlantic. Many other cultural traits have had a similarly wide dispersal. Thus the culture in one area may benefit by the diffusion of inventions originating elsewhere. Generally the diffusion is greatest to the surrounding neighborhood. From KROEBER, ANTHROPOLOGY *(New York: Harcourt, Brace and Company), p. 284.*

where. At the present time, for example, a large number of the culture areas of the world have the automobile, either by importation or by manufacture within the area. All these cultures did not invent the automobile. It was invented in Germany, and spread from that country to other parts of the world, coming to the United States in 1893.

Few locally invented elements in a culture. In any given area, the number of locally invented elements is only a small fraction of the total culture. This fact is shown in a vivid manner by Linton,[1] who traces the origin of certain culture traits with which an American comes in contact as he starts an ordinary day.

> Our solid American citizen awakens in a bed built on a pattern which originated in the Near East but which was modified in Northern Europe before it was transmitted to America. He throws back the covers made from cotton, domesticated in India, or linen, domesticated in the Near East, or wool from sheep, also domesticated in the Near East, or silk, the use of which was discovered in China. All of these materials have been spun and woven by processes invented in the Near East. He slips into his moccasins, invented by the Indians of the Eastern woodlands, and goes to the bathroom, whose fixtures are a mixture of European and American inventions, both of recent date. He takes off his pajamas, a garment invented in India, and washes with soap invented by the ancient Gauls. He then shaves, a masochistic rite which seems to have been derived from either Sumer or ancient Egypt.
>
> Returning to the bedroom, he removes his clothes from a chair of southern European type and proceeds to dress. He puts on garments whose form originally derived from the skin clothing of the nomads of the Asiatic steppes, puts on shoes made from skins tanned by a process invented in ancient Egypt and cut to a pattern derived from the classical civilizations of the Mediterranean, and ties around his neck a strip of bright-colored cloth which is a vestigial survival of the shoulder shawls worn by the seventeenth-century Croatians. Before going out for breakfast he glances through the window, made of glass invented in Egypt, and if it is raining, puts on overshoes made of rubber discovered by the Central American Indians and takes an umbrella, invented in southeastern Asia. Upon his head he puts a hat made of felt, a material invented in the Asiatic steppes.
>
> On his way to breakfast he stops to buy a paper, paying for it with coins, an ancient Lydian invention. At the restaurant a whole new series of borrowed elements confronts him. His plate is made of a form

[1] RALPH LINTON, THE STUDY OF MAN (New York: D. Appleton-Century Company, 1936), pp. 326–27.

of pottery invented in China. His knife is of steel, an alloy first made in southern India, his fork a medieval Italian invention, and his spoon a derivative of a Roman original. He begins breakfast with an orange, from the eastern Mediterranean, a cantaloupe from Persia, or perhaps a piece of African watermelon. With this he has coffee, an Abyssinian plant, with cream and sugar. Both the domestication of cows and the idea of milking them originated in the Near East, while sugar was first made in India. After his fruit and first coffee he goes on to waffles, cakes made by a Scandinavian technique from wheat domesticated in Asia Minor. Over these he pours maple syrup, invented by the Indians of the Eastern woodlands. As a side dish he may have the eggs of a species of bird domesticated in Indo-China, or thin strips of the flesh of an animal domesticated in Eastern Asia which have been salted and smoked by a process developed in northern Europe.

When our friend has finished eating, he settles back to smoke, an American Indian habit, consuming a plant domesticated in Brazil in either a pipe, derived from the Indians of Virginia, or a cigarette, derived from Mexico. If he is hardy enough he may even attempt a cigar, transmitted to us from the Antilles by way of Spain. While smoking he reads the news of the day, imprinted in characters invented in Germany. As he absorbs the accounts of foreign troubles he will, if he is a good conservative citizen, thank a Hebrew deity in an Indo-European language that he is 100 per cent American.

Most of the social heritage of colonial America was brought here from England, Spain, and other European countries. Some items of the social heritage, such as the potato, maize, types of cooking, and methods of warfare were contributed by the American Indian, though this fact is not generally known. There have been many additions to the culture since then, some of which were invented here, but most of which were imported from other countries. England and France derived much of their culture from Italy. Italy, in turn, borrowed from the Greeks. It was once thought that Greece created her culture, but now it is known that the Greeks borrowed a great deal from Crete, and that Crete got hers in large part from Egypt. Egypt has been shown to be greatly indebted for her culture to the valley of the Euphrates. And now connections are being made between the Euphrates and India, and between India and China. Clearly there has been a vast amount of borrowing of culture by one region from another.

Isolation a deterrent to diffusion. That a culture in a given locality grows largely by what it imports from other areas is shown by the back-

wardness of regions that are relatively isolated from other culture areas. These are found in out-of-the-way islands and mountain sections. In some of the mountains of the southern Appalachians in Kentucky, North Carolina, and Tennessee, the handicrafts are practiced as they were in colonial days before the coming of steam, though not quite to the same extent. Some of the families in these regions make nearly everything they consume.[1] In one of these mountain pockets a blind fiddler was found who had lived all his long life in the county. He sang the ballads that were popular in England centuries ago. He was taken to England to sing before King George V, that the ruler of England might hear English as it was spoken in the days of Queen Elizabeth.

It must not be thought that the culture in such mountain communities is necessarily retrogressive. These peoples have simply not gone forward as rapidly as do those that are in close contact with other groups. The latter can take advantage of each other's inventions, and need not depend merely on inventions they make themselves.

The Rate of Cultural Growth

THE ACCELERATED GROWTH OF CULTURE

The reference to the lagging development of the social heritage of isolated peoples brings to the fore the important question of the rate at which culture grows. Before the dawn of history culture must have grown slowly. In regard to the stone implements which furnish the best remains, and for a time the only ones, it is certain that changes were to be measured in thousands and tens of thousands of years. One of the earliest stone cultures is the Chellean, which lasted perhaps more than fifty thousand years. In it progress was slight.[2] In the early part of the Chellean culture is found the common pointed hand axe called the *boucher*. It was of medium length, almond shaped like the two hands with palms together, and had uneven edges. At the close of the period the axe had become longer and more oval shaped, was flaked all over, but still had uneven edges.[3] Nothing is known of the rate of progress of other phases of the culture. The Chellean culture occurred in Europe in

[1] United States Department of Agriculture, ECONOMIC AND SOCIAL PROBLEMS AND CONDITIONS OF THE SOUTHERN APPALACHIANS, Miscellaneous Publication no. 205 (Washington: Government Printing Office, 1935).

[2] N. C. NELSON, "PREHISTORIC ARCHAEOLOGY," chapter v in BOAS *et al.*, GENERAL ANTHROPOLOGY.

[3] H. F. OSBORN, MEN OF THE OLD STONE AGE (New York: Charles Scribner's Sons, 1922), p. 152.

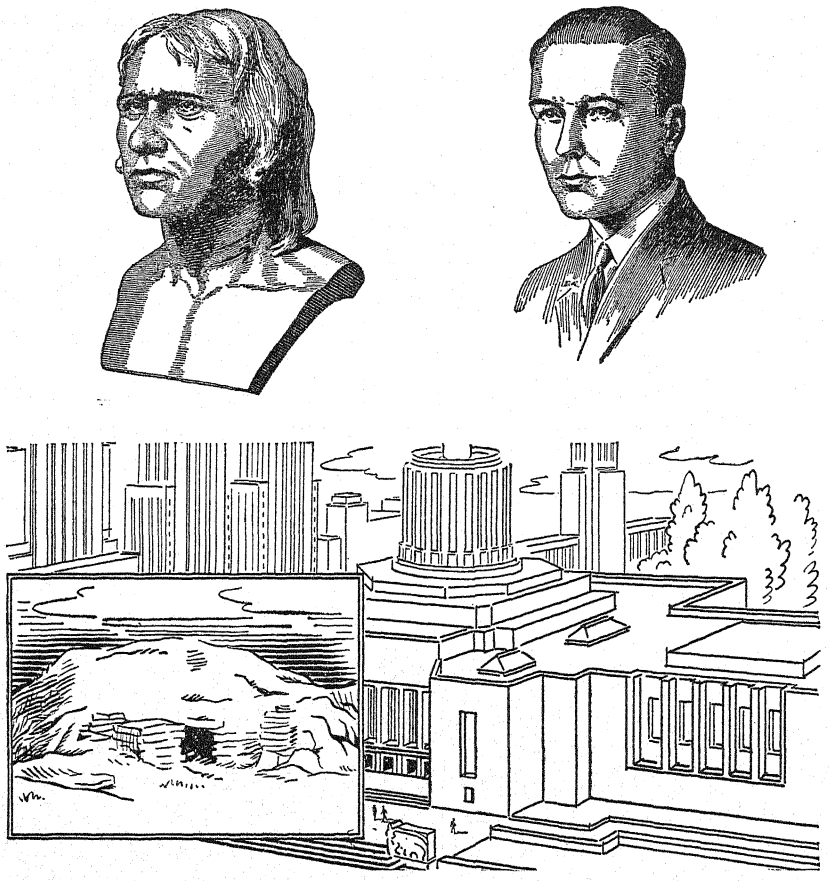


FIGURE 131. BIOLOGICAL AND CULTURAL CHANGE

There has been very little change in biological man from Cro-Magnon days to the twentieth century, but man's culture has grown tremendously. Culture seems to grow whether or not there is any biological change in man.

the Riss glacial period. No remains of man are found with the stones, so it is not known whether he had at that time reached the stage of biological evolution found in modern man. The slow rate of growth of the stone culture in the Chellean period may have been due in part to the immaturity of man's biological evolution.

The sketches in Figure 4 of the typical stone implements of the pre-Chellean, the Chellean, and the Acheulean stages of stone culture (the early stages of the Paleolithic) show how little progress was made in the stone culture in perhaps a hundred thousand years.

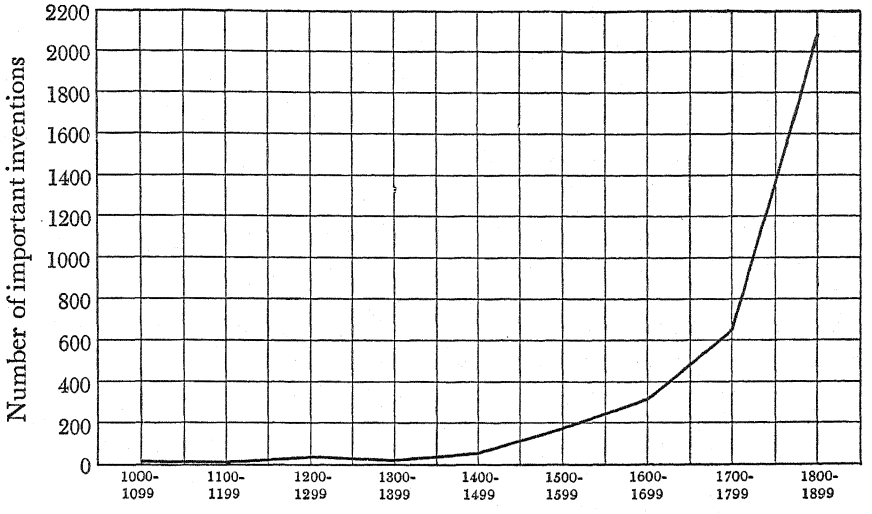


FIGURE 132. IMPORTANT INVENTIONS AND DISCOVERIES FROM 1000 A.D. TO 1900 A.D.

In the early centuries of the last millennium less than ten important inventions and discoveries were recorded, while in the last century there were more than two thousand. Even if a number of the important inventions of the early years were omitted, there still is a remarkable acceleration of growth. These inventions and discoveries are, of course, only one phase of culture, but they suggest a process of growth for all culture. Compiled from L. DARMSTAEDTER *and* R. DU BOIS REYMOND, 4000 JAHRE PIONIER-ARBEIT IN DEN EXACTEN WISSENSCHAFTEN, *J. A. Stargart, Berlin, 1904.*

But by the time of the Aurignacian culture during the latter half of the last glacial period, some fifteen to twenty thousand years ago, the size of man's skull and the shape of his head, forehead, and chin show the characteristics of modern man.[1] Indeed, the size of the head of the Cro-Magnon man was larger than that of man today.[2] The Aurignacian culture was characterized by rough stones, and so were the succeeding cultures until the Neolithic, some five thousand years ago, when smooth stones were more or less general. The evolution from rough tools to smoothed ones under the tutelage of highly evolved man required the latter half of the last glacial period and all of the time of the glacial recession. There was during this period great progress in the stone cultures in other directions, such as the elaboration of many different types of tools and implements, and the development of a culture in bone and ivory. But the time the process took was many thousands of years.

[1] H. F. OSBORN, MEN OF THE OLD STONE AGE (New York: Charles Scribner's Sons, 1922), p. 292.
[2] A. L. KROEBER, ANTHROPOLOGY, pp. 27–28.

The accumulation proceeded very slowly in the beginning. It was faster in the Neolithic (New Stone) ages, as shown by the archeological records of new forms of stone and bone. During the succeeding period, when the metals appeared, the movement from copper to bronze, and from bronze to iron was faster still. Finally, in the historical period the development of material culture has been very rapid, especially in the nineteenth and twentieth centuries. The railroads came in only in the eighteen-thirties, the streetcars in the eighties, and the buses in the nineteen-hundreds. Great changes are now measured in decades, years, even months. The evolution of material objects, at least, seems to be gaining momentum. Lowie [1] has expressed this change in the rate of accumulation in the following metaphor:

> We may liken the progress of mankind to that of a man one hundred years old, who dawdles through kindergarten for eighty-five years of his life, takes ten years to go through the primary grades, then rushes with lightning rapidity through grammar school, high school, and college.

CAUSES OF CHANGES IN RATES OF GROWTH

It was once assumed that changes in the speed of growth of the social heritage were due to the increase of mental ability. This assumption has validity if mental ability is defined as what the mind can do as a result both of learning and of inheritance, and not just inheritance alone. An engineer today has greater mental ability than had Cro-Magnon man, for the latter could do none of the modern engineering feats. But the view that the engineer today has more inherited mental ability is not as yet supported by satisfactory evidence, although it is often taken for granted by those who do not stop to think. A little reflection, however, will show that the inherited mental ability of the American people could not possibly have changed as rapidly in recent centuries as has technology. It is quite conceivable that, if the modern American had been living in the ice ages, the evolution of the stone cultures would have been no more rapid. Before relying on the biological explanation of the evolution of mental ability, for which evidence is so scarce and which seems so improbable, it is desirable to inquire into other causes for the changes in the rate of growth of culture.[2]

Relation between existing knowledge and rate of invention. One cause of the growth of culture is the functional relation between the existing body

[1] ROBERT LOWIE, CULTURE AND ETHNOLOGY (New York: D. C. McMurtrie, 1917), p. 78.

[2] WILLIAM F. OGBURN, SOCIAL CHANGE (New York: Viking Press, 1928).

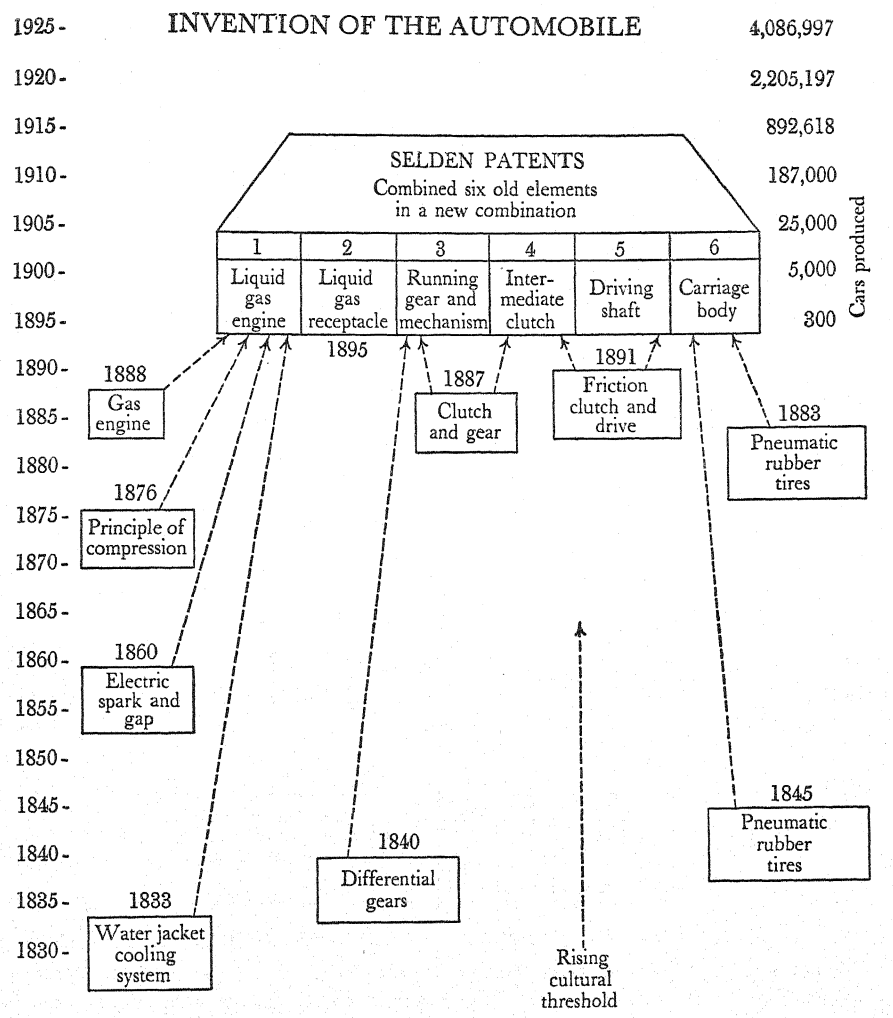


FIGURE 133. MECHANICAL INVENTION AS A COMBINATION OF KNOWN ELEMENTS

The automobile was made up of a few important existing inventions, as shown in the above chart. Thus the new grows out of the old. From F. STUART CHAPIN, CULTURAL CHANGE *(New York: D. Appleton-Century Company, 1928), p. 336.*

of knowledge and the rate of invention. Any invention depends for its inception upon the existence of elements that make up the invention. The invention of the airplane depended on the knowledge of the gasoline engine. The invention of calculus depended on a knowledge of analytical geometry. So also shaping a stone by flaking depended on a knowledge of breaking a stone by striking.

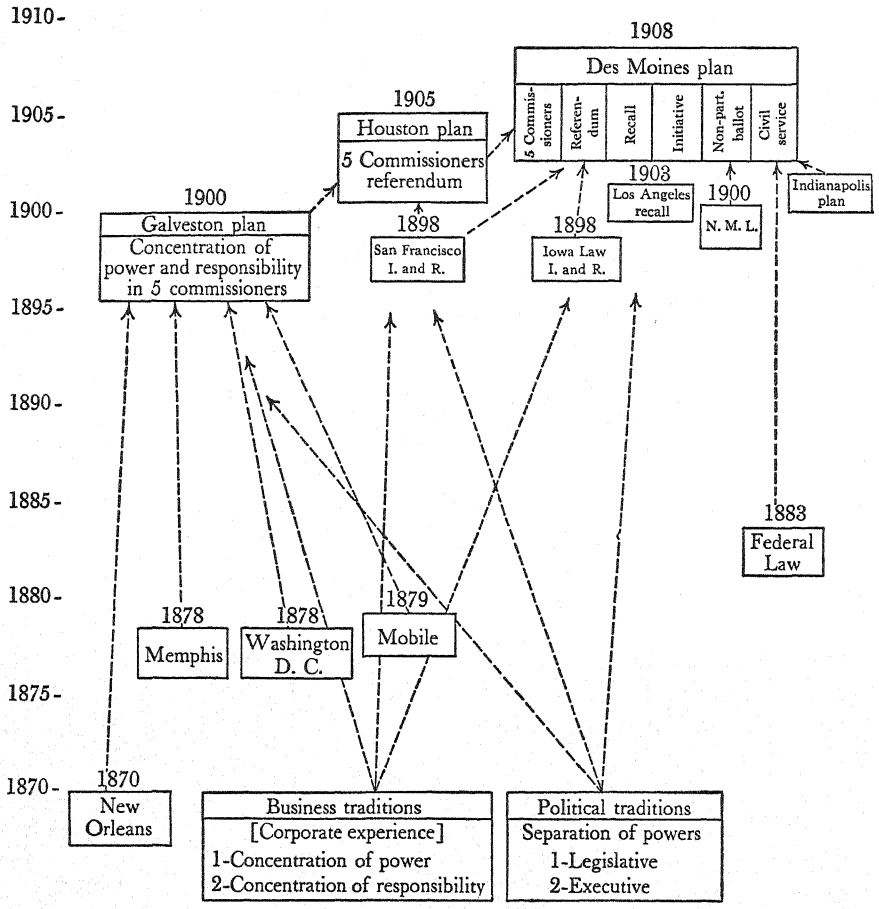


FIGURE 134. SOCIAL INVENTION AS A COMBINATION OF KNOWN ELEMENTS

The commission form of government, invented in Galveston in 1900, was a combination of previously existing elements. It evolved into the Houston plan in 1905, and was improved to make the Des Moines plan in 1908. From F. STUART CHAPIN, CULTURAL CHANGE *(New York: D. Appleton-Century Company, 1928), p. 339.*

Indeed, an invention may be further defined as a combination of known elements into a new element. The telegraph is a combination of battery, electro-magnet, and wire. Pottery is a combination of clay, water, heat, colors, and other things. Since an invention is made up of existing elements of knowledge, any particular invention can be made only if the elements which go to make it up are known.

Figure 133 shows how six important inventions were combined into one

to produce the automobile. The six underlying inventions were the gas engine; the container for the liquid fuel; the running gear and accompanying mechanism; the intermediate clutch; the driving shaft; and the carriage body. Figure 133 also shows how the gas engine in turn was a combination of still other inventions that preceded it, such as the principle of compression, the electric spark and gap, and the water-jacket cooling system.

This combination of known elements to create a new invention is not confined to material culture; it is characteristic of social inventions as well. This fact is shown in Figure 134, depicting the invention of the commission plan of city government, which was conceived in the United States in the first decade of the twentieth century. The inventors of this form of government in Galveston, Texas, drew on elements from four other cities and from the type of management used in business. The combinations of these existing inventions led to a new invention in city government.

The cave man was an infrequent inventor, and at least one reason for this was that he had so little knowledge and there were so few cultural elements out of which to make an invention. Modern man is a frequent inventor because he has so much knowledge, especially in such fields as mathematics, physics, chemistry, and other sciences, and there are so many elements of culture which he can put together into new combinations. Modern man would be a greater inventor than the cave man even if they both had the same inherited mental ability, because in modern times there is more accumulated knowledge.

THE EXPONENTIAL PRINCIPLE

The facts of the growth of culture conform to the general theory that a positive correlation exists between the number of mechanical inventions made at any given time and the size of the existing accumulation of old material culture. In paleolithic times, the accumulation was small, and the inventions were few. But some inventions were added, so the number of cultural elements grew. As the accumulation became larger, more discoveries were made and the stock of existing knowledge piled up faster. The speed seems to have been accelerated so that the movement became faster and faster as the body of knowledge got larger and larger.[1]

This general description conforms to the exponential curve, like that for the growth of compound interest. Suppose, for instance, a sum of

[1] WILLIAM F. OGBURN, SOCIAL CHANGE.

$100 draws five per cent interest, added annually. The principal increases slowly at first as the interest is added, $105 at the end of the first year, $110.25 at the end of the second year, $115.75 at the end of the third year. The increase is little more than $5 a year in the early years. But in the course of time the interest becomes very great each year, as does the principal. At the end of 100 years the interest added is around $1000 a year, instead of $5.

Another illustration of the way an exponential change occurs is the multiplication of the number of one's ancestors. Ancestors increase by the same law, only much faster. One person has four grandparents, eight great-grandparents, sixteen great-great-grandparents. If carried back to the time of William the Conqueror in England the number of one's ancestors would be greater than was the whole population of England at that time. The number added each generation would then be in the millions. The same rate of multiplication of ancestry would hold for an Eskimo, but since the communities in which he lives consist of only a few persons and all the communities that he visits likewise are small, he cannot possibly have as many ancestors as the mathematical law permits. The explanation is that there is inbreeding, and he does not in reality have as many different ancestors in an earlier generation as the exponential curve indicates.

The exponential curve, such as the compound interest law, holds true only with the mathematician's pencil and paper. In the real world something always happens to prevent the expansion for which the theory calls. This idea of the growth of culture is only an approximation of the actual process, which will not be carried out exponentially very far without interruptions. Nevertheless, the student who is curious to know how our civilization came to be, will find that this idea of cultural accumulation through the addition of more elements helps in a rough sort of way to account for the growth of culture.

Exponential curve only an approximation. The exponential nature of the growth of culture is only an approximation, and the approximation cannot be applied without noting two reservations. One is that this approximation may apply in modern times less satisfactorily to the growth of social organizations and customs than it does to the growth of material objects. The growth of material objects in modern times appears to be faster than the growth of folkways. This difference may not have existed in the early stages of cultural development or even among primitive cultures as they were before contact with the culture of the white peoples.

The second reservation is that the approximation to the exponential law applies even less closely to a particular local culture area than it does to the world as a whole. If each culture area, as for instance, the United States, were a separate planet, there would be no contact between the different areas and the culture in any one area would tend to grow like compound interest. But culture areas are actually in touch with one another and, as has been shown, inventions are borrowed. Where this is the case, quite naturally the accumulation and compounding of culture in a particular area is more rapid. The transportation inventions are thus very important in causing a culture to grow in any one region. The Japanese culture has certainly grown very rapidly by taking over large parts of the culture of the West. This process was begun, it will be recalled, by the successful effort of Commodore Perry in breaking down Japan's commercial seclusion in 1854.

Why the Rate of Cultural Growth Varies

The Irregular Nature of the Growth of Culture

Culture seems to grow rapidly at one time and slowly at another. Changes were rapid in western Europe during the Renaissance but quite slow during the preceding Dark Ages. If the course of the development of culture were in keeping with the exponential law, culture would at first grow very slowly, then increase more rapidly as time went on without ever returning to a slow tempo.

Diffusion a disturbing factor. Diffusion of invention is a factor disturbing this type of growth. If the diffusion is very rapid for a time and then slower, the growth of the culture will probably be rapid and then slow. For instance, the rate of change in Japan was very rapid as western culture was being taken on, perhaps more rapid than it was after the significant inventions had been imported and assimilated.

All inventions not of equal significance. Another reason for the possible change from a rapid rate to a slow one is the fact that all inventions, social and mechanical, are not equal in significance. The inventions of the steam engine and of steel-making were highly important and led quickly to a great number of developments. It may be some time before two such significant inventions appear again. Another invention of earlier times that precipitated many social changes was bronze, which affected warfare, tools, utensils, and art forms. The irregular appearance of great inventions produces fluctuations in the growth of culture,

though the fluctuations are not at all so regular as the cyclical movements which characterize the tides or the seasons of the year.

If we examine any one unilinear series that has evolved for a long time, for instance guns or clocks, the same irregularities are likely to be found. Thus, in making fire, certain significant discoveries occurred at different times. There was the friction of the point of a twirling stick on a dry piece of wood which produced a spark that could be fanned into a flame. Then there was the discovery that the striking together of certain types of stone, such as iron pyrites and flint, would produce a spark. Much later came the match. Each one of the major inventions in fire-making was succeeded by a large number of smaller improvements and additions. Then followed a long period without any inventions or improvements in this field. Likewise the development of the bicycle was followed by a large number of patents which became fewer and fewer in number until the motorcycle was invented, which in turn was improved by many patents following almost immediately.[1]

Any one series is thus highly irregular. But when the thousands of series that go to make up culture are added together, the irregularities are somewhat less noticeable because they complement one another. The course of growth is thus continuous in higher degree for culture as a whole than for any particular series.

VARIOUS CONCEPTIONS OF THE GROWTH OF CULTURE

Many writers [2] have been impressed with the cyclical nature of cultural change. Some even go so far as to speak of the rise and fall of cultures, claiming as examples Greece, Rome, Spain, and Holland. These writers, however, are not using the word culture in the meaning of social heritage, which is the way the term is used in these chapters. Instead, various special conceptions of culture are held by these different writers.[3] Almost all of them exclude material culture. Many identify culture with the arts, literature, and philosophy. The changes in any one such series are naturally more violent than the changes in the whole social heritage. Certainly painting, music, and architecture have periods of flowering, followed by intervals of quiescence, much as was the case with fire-making.

[1] Linton likewise distinguishes between *basic* inventions and *improving* inventions. RALPH LINTON, THE STUDY OF MAN, p. 316.

[2] OSWALD SPENGLER, THE DECLINE OF THE WEST (New York: Alfred A. Knopf, 1926).

[3] For summary of theories see PITIRIM SOROKIN, CONTEMPORARY SOCIOLOGICAL THEORIES (New York: Harper and Brothers, 1928), chap. 13.

Other writers,[1] in turn, conceive culture to be the civilization that is tied up with a particular state or empire. Certainly empires rise and fall, and so do the various projects which they sponsor. Yet it is to be observed that, while the collapse of a particular government has profound effects upon certain parts of the local culture, such as building, education, and art, the influence on other phases of the social heritage, such as the family, farming, or the material culture, may be less dramatic.

Finally, to some authors [2] culture is essentially a rarefied spiritual pattern. Their idea seems to be an indefinable concept but it involves an harmonious integration of the ideational aspects of the arts and social organization that leads to an epoch of creativeness. It is usually agreed that the Age of Pericles was such a period, as was also the Renaissance in Italy. But such situations, even if they were all that their admirers claim for them, scarcely constituted the whole social heritage. Probably some such conception as the foregoing is held by those who now ask if civilization will survive. In so far as such speculators are not hysterical, they probably mean by civilization some rare combination of values, real or assumed, but hardly the social heritage.

The identification of culture with the arts leads to grave misconceptions. The emphasis is out of proportion, and it neglects the material culture and economic factors. The Dark Ages were no doubt dark so far as the arts and learning were concerned, but the development of material culture went ahead during this period, and many important inventions were made. The stirrup, not possessed by the Greeks or Romans, was produced during this time. "The lateen sail, fore and aft stern castles, horseshoes, modern harness, compass, rudder, gunpowder," were also invented, and improvements made in the waterclock, weapons, armor, and the steam engine.[3] Progress was made in a good many of the material arts and even in science, especially chemistry. It should be noted, too, that, while the art and philosophy of ancient Greece were truly great, there were other aspects of Greek culture not so highly developed. The Greeks did not have the zero in their number system, for instance, yet this invention was achieved by certain American Indians. Nor could the Greeks multiply or divide as well as could the Arabs with their system of numerals.

[1] ALFRED ZIMMERN, THE GREEK COMMONWEALTH (Oxford: Clarendon Press, 1911).

[2] PITIRIM SOROKIN, SOCIAL AND CULTURAL DYNAMICS (New York: American Book Company, 1935).

[3] S. C. GILFILLAN, THE SOCIOLOGY OF INVENTION (Chicago: Follett Publishing Company, 1935), p. 137.

Other misconceptions concerning the growth of culture arise when the loss of leadership in the onward march of culture is interpreted as a sign of cultural decay. The Greeks held first place in cultural advancement at one time; they are hardly in the lead today. Yet their culture in general is now much more advanced than it was in the Age of Pericles, though this may not be true of sculpture and philosophy. Rome's relative position in the world of nations is not as strong today as it was in the days of the Roman Empire, but Italy has in general now a far superior culture.

THE COMPARATIVE GROWTH OF CULTURES

The foregoing discussion suggests that it is possible to compare certain areas of the world to see which may be in advance of others in point of cultural achievement. Thus, a culture with written language is superior to one without it, for writing makes it possible for records to be preserved. It is necessary, however, to sound a danger signal at this point. In speaking of cultures, the word "superiority" should be used very sparingly, for it implies moral, aesthetic, or philosophical valuation, which is difficult to measure or to rank on a scale. George Wharton James in his book *What the White Man Can Learn from the Indian* shows how the culture of the American Indian is superior in many values to that of the white man. Similarly Robert Lowie in his *Are We Civilized?* casts doubt on the superiority of modern culture apart from skill in achievement. The issue is well illustrated in the selection from Stuart Chase[1] which follows.

> In the year 1800 my great-great-grandfather was living with his family in a little farmhouse near the town of Newburyport, Massachusetts. For the past five years I have been living with my family in New York City. As a test of progress, how much more abundant, more rewarding, is my life than his? He lived at the threshold of the industrial revolution — the first textile mill in America was built in 1802. I live on the crest of the greatest wave of applied technology that the world has ever seen....
>
> First, as to shelter. I live in a decaying Victorian apartment house up three flights of stairs in a dark and dirty stair well. In certain seasons, for as much as an hour in the afternoon, sunlight will make its way through one window in the kitchen and lie like some rare flower on the floor. Otherwise there is no sunshine, summer or winter. And very

[1] STUART CHASE, "MY GREAT-GREAT-GRANDFATHER AND I," THE NATION, 123:190–92, 1926. Quoted in WILSON D. WALLIS and MALCOLM M. WILLEY, READINGS IN SOCIOLOGY, pp. 53–56.

little light; and not too much fresh air. We open our windows, but we never, if we can avoid it, look out of them. The art of the jerry-builder has affected woodwork, plaster, and plumbing so that nothing is ever quite clean, or quite dry, or quite workable. My wife struggled with a New England housewife's conscience for two years and then, to save her sanity, strangled it. We have a bathroom it is true, we have electric lights and a gas stove. But is my housing today — particularly when children and their needs are considered — superior to that of my great-great-grandfather in his sunny, low-eaved, great-ovened farmhouse in the town of Newburyport? It is true that for the same monthly rental we might have secured a cleaner and more attractive apartment, but owing to the immutable laws of real-estate investment, it would have to shrink so in size as to be almost uninhabitable by virtue of congestion.

Take food. The food we eat is vastly more varied; it is probably richer and undoubtedly softer than the diet of my great-great-grandfather. The softness has an unfortunate effect on our teeth, and one wonders if the whole-wheat grains, the fruits and berries fresh picked, the simple vegetables from the garden or the root cellar, did not constitute not only a more wholesome but a more toothsome and succulent diet. One grows weary of pale food in cans and bottles and packages — however meticulously sterilized, however flamboyantly advertised. Not only vitamins, but the very juices which act most powerfully on the salivary glands seem to be missing.

Take clothing. Again the variety today is as conspicuous as its lack of durability. As the jerry-builder has undermined housing, so the shoddy-maker has undermined textiles. Not that sound cloth cannot be made on the machine. I saw an overcoat recently which had been used continuously for ten winters — and showed no sign of wear. It was not, however, a product of the higher salesmanship, but was made of cloth tested for the United States Government and ordered for a military officer. Today the clothes my wife wears are, I suspect, more comfortable, more suited to the lines of the human body, than those of my great-great-grandmother — however deficient they may be in workmanship. But the clothes I wear — in town at least — are both flimsy and hideous compared with the knee breeches, the noble colors, the brave brass buttons of Newburyport a century ago. I doubt if in all the centuries since men wore clothes there has ever been a mode so ugly and so depressing as the somber cylinders which have encased us since the forties. Along with the smoke of the coal age came what might be termed the smoke-stack style for men. Just lately one notes the arrival of a special sports mode which admits color and line, but only an infinitesimal fraction of the population — at due and circumscribed seasons and places — can avail

itself thereof. Undertakers' regimentals still constitute the last word for the bulk of the male citizenry.

Take health. There were no reliable vital statistics in Newburyport in 1800, but I doubt if the average duration of life was as long as it is today. I suspect that we spend more days per year incapacitated by sickness, but medical science pulls us through where the blood-letters of Newburyport only assisted the gentleman with the scythe. If you fell ill, your chances of dying were considerably greater in the old days, but you did not fall ill so frequently — you couldn't afford to. The net result is a lower death rate today, but for that advantage — if it be one in terms of abounding life — consider the price that we pay in the services of doctors, dentists, hospitals, X-rays, injections, inoculations, and the staggering costs of blasting water systems, sewage-disposal systems, garbage-collection systems, and public-sanitation systems generally into a congested city area utterly unadapted, through lack of community planning, to such arteries.

Take education. I send my two children to one of the best modern experimental schools. We have tolerated the bleak apartment chiefly to be near this school. Yet I gather that the bulk of the effort of those competent women who operate this experiment in education is directed to the recreation in a hostile environment of those factors of craftsmanship, manual dexterity, awareness of nature, spontaneous play, which my great-great-grandfather's children received naturally, automatically, and costlessly in Newburyport. The world those children took to as a duck takes to water is now being searched for in the city's canyons with a large outlay for "equipment" and "material" and "project study"; with a terminology altogether stupefying; and with no assurance as yet that, beleaguered by an environment in which child life is implacably ignored, the search will be successful. The public schools of course have never even thought of such a search, much less begun it. In respect to the three R's, however, instruction not only in the experimental schools but in the public schools as well is vastly more competent than it was a century ago.

But it is possible in comparing cultures to agree that the knowledge existing in one culture permits its members to do more than does the knowledge in another. A culture with tools of iron can do more with such implements than can a culture with only tools of stone. This fact is clearly seen in the special case of combat. One culture may be "superior" in this sense to another.

The situation may be dramatized if the different culture areas are thought of as running a race. It is interesting to inquire which is in the

lead, and why. The one that is in advance would tend to outdistance the rest if the race were wholly in accordance with the compound interest law. The leading area would have the broadest base, hence would grow at the most rapid rate. Its rate of growth might be, say, a thousand units in a given interval of time, while a backward primitive culture might grow only ten units during the same interval of time. Assuming that each had the same rate of loss, the advanced culture would be accumulating and inventing much more rapidly. The distance between the two would become greater and greater, and the primitive and isolated cultures would get hopelessly behind in a race with the civilized cultures. In this way European culture outruns the Eskimo culture and leaves it further and further behind; this advance may occur without any change in inherited mental ability.

But in the world of reality, growth by the exponential law may be disturbed. One such disturbing factor, as has been noted, is the diffusion of cultural elements. Greece may have been in the vanguard of cultural growth at one time and moving along at a relatively rapid rate. But when Greece planted colonies on the Italian peninsula, the inhabitants there had a special advantage in that Hellenistic culture was brought to them, much as Western culture was brought to Japan at a later time. A culture such as that on the Italian peninsula, which was not far behind that of the Aegean, could quickly catch up by borrowing many of the new and advanced elements of the superior culture. Once a culture has caught up with the more advanced culture of another area, it may surpass it by virtue of various influences, as was the case with Rome in comparison to Greece.

VARIOUS FACTORS AFFECTING THE GROWTH OF CULTURE

Social organization. One influence of considerable importance in the growth of a culture is social organization, especially that of the state. If the government is well organized so that trade and economic life flow smoothly, the situation is favorable for the peaceful arts and the inventions to follow them. Wars bring about a different situation. If they are to be prosecuted successfully, they may require social inventions which promote effective organization. The administration of conquered territory also requires efficient governmental machinery. The advancement of economic life that comes from tribute and revenue exacted from conquered territories may favor invention and its spread. On the other hand, wars may be very exhausting and disorganizing. They may de-

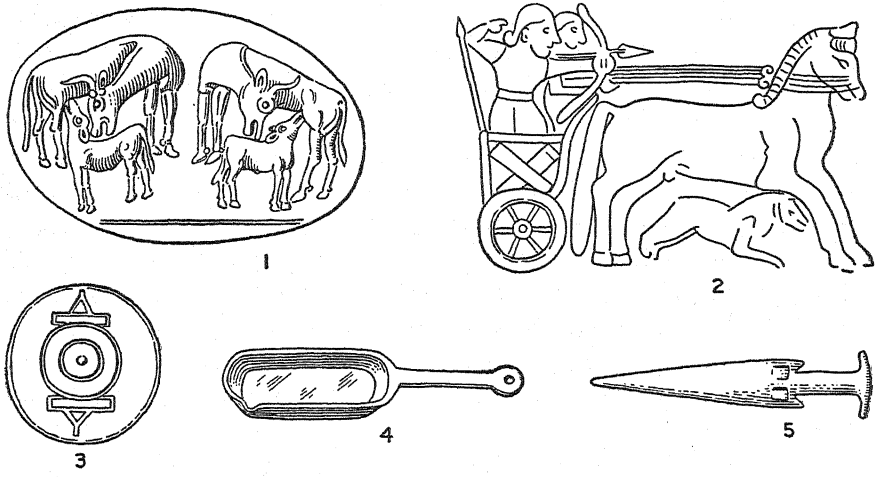


FIGURE 135. EARLY INVENTIONS AROUND THE AEGEAN SEA

Several important inventions were diffused into the culture area around the eastern end of the Mediterranean Sea several thousand years before Christ. These included: (1) domesticated cattle, (2) the wheel, (3) bronze, (4 and 5) iron implements, and (6) the alphabet, giving a very great impetus to the development of culture in this region. Generally, the further advanced a culture is, the more rapidly it grows. Adapted from drawings in THE PALACE OF MINOS AT KNOSSO, *by* ARTHUR EVANS. *(London: Macmillan and Company, Limited, 1935.)*

stroy empires as well as build them. Wars thus retard cultural growth in one region and advance it in another.[1] Obviously the condition of a nation's social organization has a good deal to do with its possibilities for growth in all lines of culture. The Roman Empire in the days of its grandeur was in a more favorable position for making advancement in such fields as law, sculpture, painting, literature, and architecture, if not in the mechanical fields, than was the same culture area after its conquest by the "barbarians" from the North.

Geographical location. The geographical situation may also be favorable to cultural progress. For instance, the countries situated in Asia Minor and around the eastern end of the Mediterranean were certainly favorably located for the diffusion of culture at the time of the dawn of written history.[2] The horse helped people to get over the deserts.[3]

[1] See J. L. HAMMOND and B. HAMMOND, THE RISE OF MODERN INDUSTRY (New York: Harcourt, Brace and Company, 1926), in which it is pointed out that England's isolation from the continental wars was favorable to its development as an industrial nation.

[2] HENRY BREASTED, ANCIENT TIMES (Boston: Ginn and Company, 1916).

[3] JOHN L. MYRES, THE DAWN OF HISTORY (London: Williams and Norgate Company, 1911).

The Euphrates and the Nile Rivers were navigable for long distances. The water distances between the islands of the Aegean Sea were very short and the mainlands were not far off. Three continents came together at this point and made possible the diffusion of several inventions which happened at this time to be very important. These included the domestication of the horse (probably in Asia); the wheel (invented only once in the world, probably to the north of Greece); copper; iron from Africa; and an alphabet from Asia Minor. Small wonder, then, that at this time culture blossomed at the eastern end of the Mediterranean.

It should be noted, however, that the favorableness of the geographical situation varies according to the stage of the existing culture. England was better situated for advancement when boats had become large and when America had been discovered, than when the size of boats limited voyages to short distances.

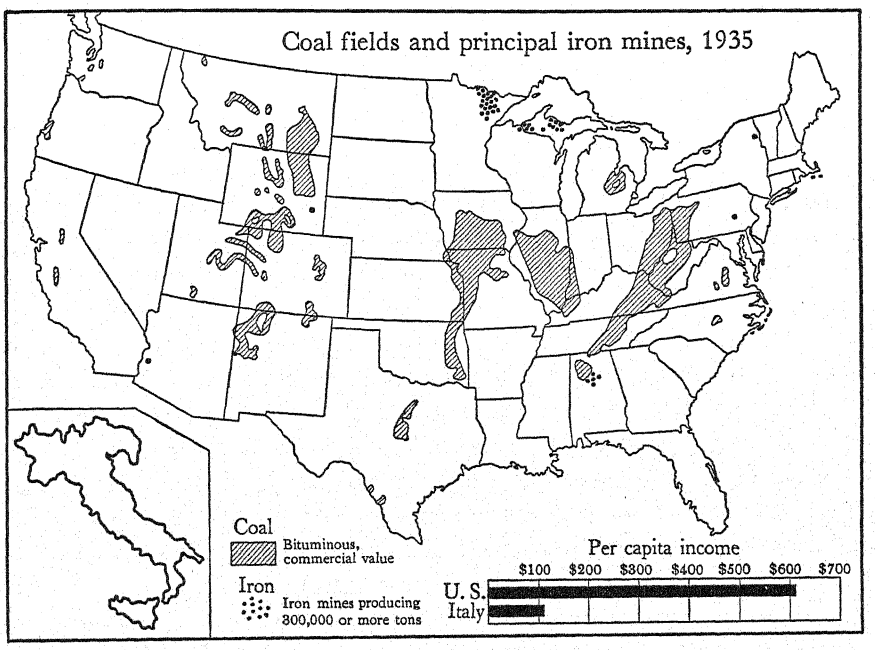


FIGURE 136. COAL AND IRON IN THE UNITED STATES AND ITALY AND THE COMPARATIVE STANDARDS OF LIVING

Coal and iron production in modern times means a higher standard of living. The United States is unusually blessed with these resources. Italy has none. To a certain extent Italy overcomes these limitations by utilizing hydro-electric power from the Apennines and by importing scrap iron. During the nineteen-twenties the per capita income, in money of equal purchasing power, was about six times as great in the United States as it was in Italy. Map of the United States from THE STRUCTURE OF AMERICAN ECONOMY, *National Resources Committee, 1939, p. 48.*

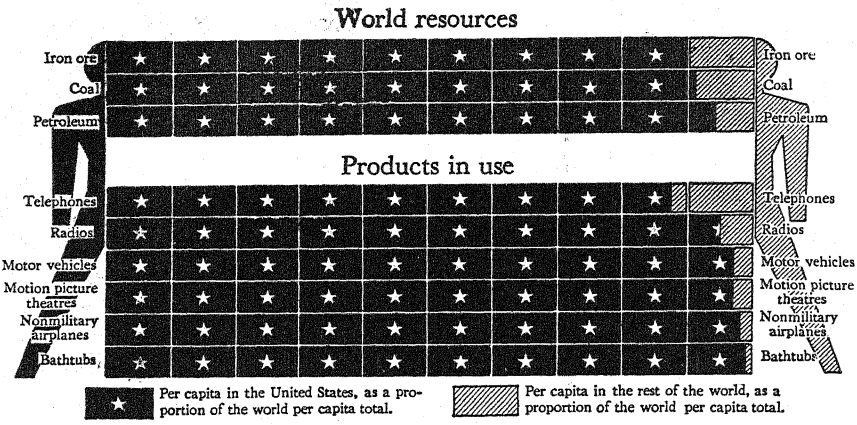


FIGURE 137. THE UNITED STATES AND THE WORLD IN RESOURCES AND PRODUCTS

America has an abundant supply of oil, coal and iron, a highly developed technology, and a small population. Therefore we have a high standard of living as compared with the rest of the people of the world. The population of other regions is, of course, very varied, and the superiority of the American situation would not be so marked if the comparison were only with European places. Many other places have neither the natural resources nor the technology, and many of them have a large population. From FORTUNE, *p. 51, February, 1940, by Philip Ragan Associates.*

Also, any area that is rich in coal and iron is in a position of advantage when steam power for manufacturing has been invented. At this stage of cultural evolution England, which is rich in coal, has an advantage over Greece or Italy, which have no coal or oil or iron, and are not situated so close to the rich American or Scandinavian supplies. Before the coming of steam, countries with many fertile river valleys, such as France, had an advantage over mountainous regions, like those in Wales, Scotland, and northern England. The coal of England meant little to her at the time her land was overrun by the Jutes and Angles because the uses of coal in producing power were not known. Likewise, the rich mineral resources of the United States were of no value to the Indians whose culture had not reached the stage of metals or mechanical power.

Race and the growth of culture. The lead in the march of cultures may be held by one area at one time and by another at a different time, irrespective of the inherited mental abilities of the peoples. Factors making for such shifting of leadership are location, natural resources, possibilities of diffusion, the status of transportation, the effectiveness of social organization, and in general, the degree of development of the material culture.[1]

[1] FRANZ BOAS, THE MIND OF PRIMITIVE MAN (New York: The Macmillan Company, 1938); FRIEDRICH HERTZ, RACE AND CIVILIZATION (New York: The Macmillan Company, 1928).

It is commonly assumed that the Greek culture was in the lead at one time because of the superiority of the Greek people, and also that in a relatively short time the culture of Rome took the lead because of the greater abilities of the Roman people. The latter, however, belonged to the same racial group as the Greeks. Moreover, the shifts of leadership to Spain, to France, and to England, were rather too quick to be accounted for in terms of race.

Curiously enough, the evidence given to support the race superiority theory is the cultural achievement of the people, which is itself the thing to be accounted for. This type of evidence is inadmissible. Indeed, it would be very difficult to get any evidence to show the superiority of any one European racial type over another during the historical period.[1] On the other hand, a variety of cultural and geographical factors have been shown to be very significant in explaining why, at a given time, the culture of one region is more advanced than that of another.

RATES OF CHANGE IN MODERN CIVILIZATION

The preceding survey of the processes of cultural evolution leads to a consideration of social change in modern times. What will be the probable rapidity of change in the future? Many people refer to our times as an age of change, with the possible implication that prior to the present there was a stationary culture, and that in the future there will probably be a stabilization of the forces of change. In other words, some observers seem to think that the present is an age of transition between two periods of peace and quiet. Of this theory it may be said there is little evidence to support the idea that culture actually was stationary in the epoch immediately preceding the present. The past would seem to be characterized by slower changes; in modern times the changes have been faster. Moreover, a truly stationary society has seldom existed in the past few thousand years. In the period of pre-history, when there were no written records, changes would have to occur within the lifetime of a man or at least within his memory, if they were to be noted. If changes did not occur within such a span of time, for all historical purposes the society would be stationary. But today many profound changes may occur within the lifetime of an individual. It is said, for instance, that changes are now so rapid that in many families mother and daughter cannot well understand each other's conversations, the background of their ideas are so different.

[1] For fuller discussion of this point, see Chapter III.

Material invention a cause of rapid change. In seeking to determine whether changes will continue in the future, it is well to begin by a study of the causes of change. Primarily, the cause is the making of inventions, mechanical and otherwise, and secondarily, the diffusion of inventions already made. In none of the modern countries does the upward trend of mechanical invention give any indication of stopping or even of slowing down. In the United States the number of patents granted by decades up to the present is as follows:

TABLE 37. NUMBER OF PATENTS ISSUED, BY DECADES *

Year	Patents (in thousands)	Year	Patents (in thousands)
1930–39	488	1890–99	216
1920–29	432	1880–89	182
1910–19	319	1870–79	138
1900–09	259	1860–69	77

* UNITED STATES PATENT OFFICE REPORTS, 1868–1939 (Washington: Government Printing Office).

All patents are not inventions, nor are all mechanical inventions patented, but patents are a worthwhile index of material inventions, for the majority of patents are minor inventions. The number of minor inventions is probably correlated with the number of major ones. The probability is that mechanical invention and scientific discovery will continue at a more rapid rate per decade than in the past, though there may be variations in the rate at which fundamentally significant inventions are made.[1] Even if a moratorium were declared on invention and scientific research, the new inventions already in existence would continue to produce social changes for centuries to come.

For the non-material culture, there is no index of change as good as patents are for the material culture. It is therefore difficult to predict about social inventions. However, it should be noted that many social inventions are precipitated in the non-material culture by inventions in the material culture. Dangerous machinery is a cause of the social invention of workmen's compensation insurance. A continuance of mechanical invention, therefore, will in itself produce further changes in the realm of the non-material culture. In addition, social inventions will be produced which are not immediately and directly dependent on technology, and which in turn will have social effects and lead to other social inventions. Thus the invention of the corporation leads to the invention of the corporation tax.

[1] S. C. GILFILLAN, THE SOCIOLOGY OF INVENTION, Appendix.

Diffusion and rate of change. The situation regarding changes due to the diffusion of inventions is somewhat different, in that it is affected by the transportation and communication inventions. At first these devices operate to increase the rapid diffusion of inventions from one country to another, stimulating the rate of change in any given country. But it is quite possible that, in the future, transportation and communication may tend to make all culture areas more and more alike in their possession of common elements. In so far as the various culture areas are alike, to that degree will the inventions flowing from these areas tend to be the same. Even under these circumstances, however, all the cultures would be highly advanced, so that a continued high rate of invention might be expected.

There are a number of lesser situations affecting invention. For instance, monopolistic industry probably does not encourage the adoption of inventions as much as does competitive industry, and the trend seems to be, slowly or rapidly, toward monopoly. Furthermore, many inventions require expensive laboratories and trained personnel. Inventing is becoming in itself a profession. Still other pertinent factors are policies of the state affecting patents, research, and the support of universities.

Probability of continued rapid change. It is interesting to speculate on whether or not mankind's appetite for inventions may be satiated. There are some who think that men have about all they want in material goods, and that there is no further need for invention. No doubt some men in ancient Egypt would have felt the same way, yet many new inventions have been made since the Ptolemies. Indeed, the variety of man's detailed wants seems limitless. It would certainly be unwise to draw the conclusion that mankind has all the material goods it wants and that for this reason there will be no more invention. Rather, the foregoing analysis indicates that in the near future, as in the present, we shall continue to have very rapid changes. In fact, one author has compiled a list of 1500 needed inventions.[1] These represent a very wide demand that still exists. Out of the list the author has chosen what in his judgment are the ten most needed inventions. These are indicated in slightly abbreviated form in the following paragraphs.

> Power is to the world what lubrication is to an automobile. It is the stuff the world "runs" on. We cannot produce energy in the strict sense

[1] RAYMOND F. YATES, FIFTEEN HUNDRED NEEDED INVENTIONS (New York: Donley Publishing Company, 1933).

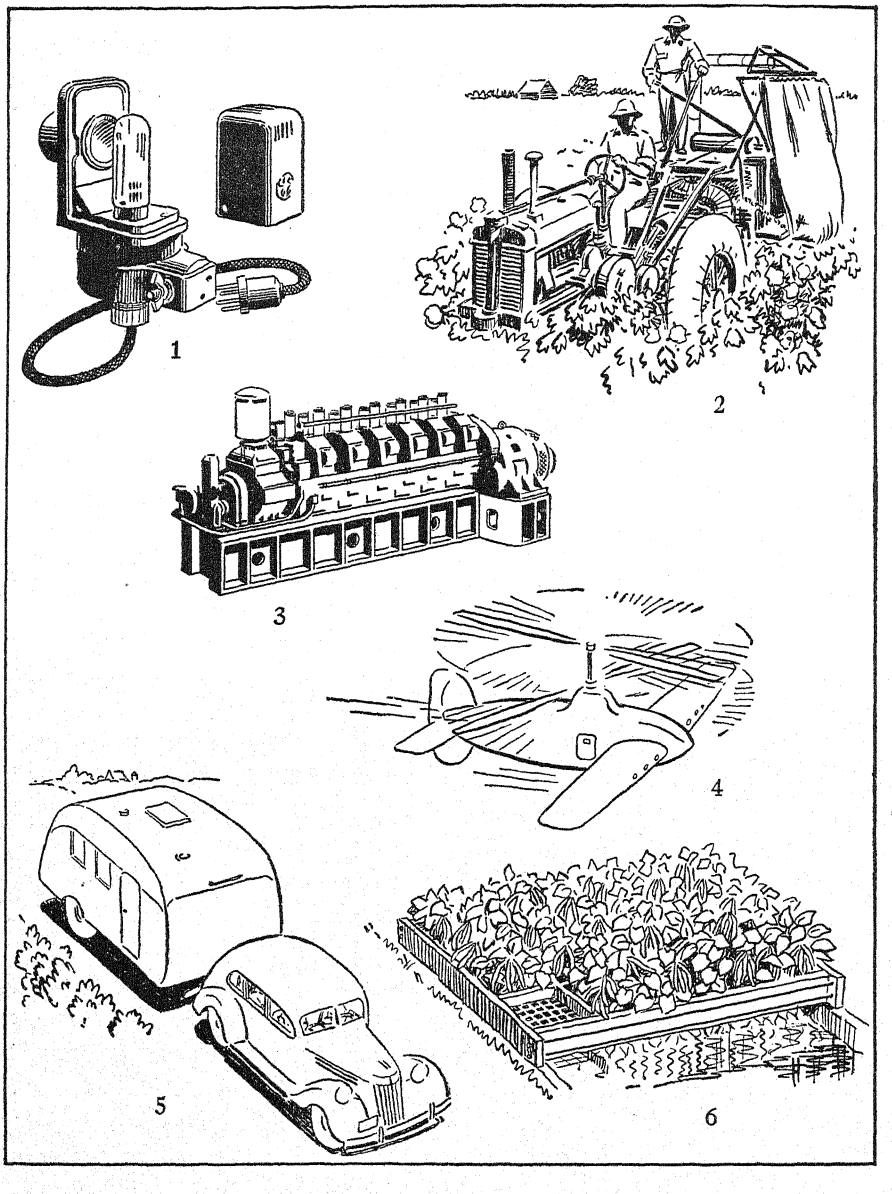


FIGURE 138. INVENTIONS OF SIGNIFICANCE FOR THE FUTURE

1. Photo-electric cell. 2. Cotton picker. 3. Diesel engine. 4. Helicopter. 5. Automobile trailer. 6. Soilless gardening. At the beginning of this century the telephone, the motion picture, the radio, the airplane, the automobile and rayon were in the infant stage of development and have since that time become great influences in modern civilization. Perhaps during the next half century the inventions pictured above may become just as significant.

of the term; we can only transform it.... Now in changing energy from one kind to another we are like a careless child trying to pour milk from one bottle to another, spilling most of it.... We simply need more efficient methods of transformation. When we produce energy by burning coal, for instance, we transform it twice and each time we lose a healthy percentage.... Why cannot electrical energy be produced direct from the heat of the coal without introducing any moving mechanism?...

What is the second most needed invention? Any engineer with a sound knowledge of modern industrial conditions will hold that some method of storing energy is needed.... If a small, light container for electric power were invented, transportation would be revolutionized. Say we had a device weighing about five pounds which would deliver twenty horsepower of energy for a period of twenty hours?... During the night, all of the water of Niagara could be made to pass through turbines connected to powerful electric generators that would make currents to be stored away for the next day's use. Then we could save some of our coal and in place of wasting it under boilers as we now do, it could be burned in by-product ovens for the recovery of the many valuable chemicals it contains....

Although it may not be third on the list of importance, cold light must be considered as one of the ten most needed inventions of the day. Our present electric lamps give off only eight per cent of light. The remainder of the energy is wasted as useless heat — ninety-two per cent of it. If some inventor could reverse these figures, giving us a light that produced ninety-two per cent illumination and eight per cent heat, we would save several billion dollars worth of electric power annually. Perhaps future light in our homes will be supplied by causing some invisible radiation to make walls phosphoresce.

The perfection of a more rapid means of transportation is without doubt an invention that really belongs in the list of ten. This does not necessarily refer to the perfection of the airplane. Engineers are by no means convinced that our most rapid travel will take place through the air. In this connection, the monorail is again suggested as a possibility. Then there is magnetic levitation which has been experimented with as a means of overcoming both the problem of friction and high traction power....

What is number five? The wireless transmission of power fills this space.... Many rich and beautiful regions of the world are now closed to civilization because no sources of power are available. Since energy is the raw material from which all of our luxuries come, every section of the world would be worth living in if a continuous supply of power could be delivered without depending upon transmission lines. The successful

control of distant mechanism by radio impulses is also one of the greatest things that could happen in our time. We have developed systems that work fairly well but none reliable enough to withstand the strain of commercial application. Tesla said not long ago that we would soon be sending crewless ships across the ocean to any port in Europe. . . .

Great things would come to the human race if we should find a method for the transmutation of matter. . . . The transmutation of matter will teach us to make up entirely new matter; that is, we will be able to make elements that do not exist at the present time. Engineers will go to our chemists and metallurgists and ask them to design a new metallic element for certain purposes and to withstand certain strains and stresses. . . .

Television would bring more real benefit to the world than most people realize. First and foremost, it would strengthen the home as an institution. Our moralists claim the home is losing its influence. Television would bring any event in the world to the fireside and this with radio would certainly make the home mighty attractive to young people.

Still another great invention lies in the medical field. The writer refers to a discovery that would cure tissue-destroying diseases like cancer and X-ray burns as well as tuberculosis. . . .

Artificial or transplanted eyes that would allow people to see might well be counted in with the ten most needed inventions. The same would be true in connection with a device that would overcome deafness.

SUMMARY

This chapter has been devoted to the consideration of two principal problems: the processes by which culture accumulates, and the rate at which it grows. Culture accumulates when the number of new elements added in any given unit of time is greater than the number lost. The elements which are added in a particular area may either be invented there, or imported. Only a small part of the social heritage of an area is of local origin. Most of it is of foreign origin and is borrowed. The social heritage of a particular locality grows largely through diffusion. Those regions in the past which were favorably located benefited greatly from the fact that they could borrow culture from other areas and reinvigorate their own, as was seen to be the case with Greece. On the other hand, isolated peoples like those in the southern Appalachians tend to have a backward culture. The relative position of the culture of a people is no reflection on their native intelligence. The geographical situation, natural resources, status of transportation, and opportunities for contact have been shown to be among the factors that affect cultural leadership.

Each new invention which is added to a culture represents a new combination of old elements. There is thus a continuity to culture. A new invention is dependent on certain other inventions that went before, and cannot be produced unless these elements are present. A modern inventor profits by the achievements of his predecessors. Moreover, if every new invention is a combination of old elements, then the more elements there are in a particular culture, the greater will be the number of possible new inventions. There is, indeed, a positive correlation between the number of inventions made at any given time and the size of the existing accumulation. The facts of history and pre-history have been shown to support the theory that, with the increasing accumulation of inventions, the pace of cultural change has become increasingly rapid. Roughly speaking, it appears that material culture, like compound interest, grows according to the exponential principle. Although this statement is only an approximation, it throws a great deal of light on the way culture grows.

In reality, something always arises to disturb growth by the exponential principle. Unequal rates of diffusion constitute such a disturbing factor,

as was shown for Japan. Another is the unequal significance of inventions. Major inventions are followed by a host of lesser inventions, after which there may ensue an interval of quiescence. The growth of culture is thus irregular. Even so, these fluctuations are more noticeable in any one series than in the social heritage as a whole.

Unfortunately these fluctuations in certain aspects of culture have led to a mistaken belief in the rise and fall of the total social heritage. This error is due to confusion in the use of terms. It is unfortunate to identify culture with creative art, or with other special aspects of the social heritage wherein fluctuations may be great. Such identification of culture with art or philosophy, or with empires whose growth and decay are noteworthy, has led to erroneous ideas of the rise and fall of cultural growth for the world as a whole.

According to the exponential principle, technological invention should continue at a more rapid rate in the near future than in the past. This probability is supported by the evidence showing a steady increase in the number of patents granted in each decade. Such rapid changes bring many serious problems of adjustment. These are so important that the last two chapters of this book are devoted to their consideration.

QUESTIONS FOR DISCUSSION

1. How does culture grow? How does a particular culture grow? Illustrate.
2. What does the inventor owe to inventors who preceded him? Cite some illustrations.
3. Why is the process of accumulation at present more evident in respect to material than non-material culture? Was it ever otherwise?
4. How much of the culture of America is 100 per cent American?
5. Is it easier to make an invention in the United States today than it was 100 years ago? Why?
6. What part has diffusion played in the recent growth of culture in Japan?
7. Why are the southern mountaineers "backward"?
8. What are several particularly significant inventions of the past? What made them great?

9. Does culture grow with equal rapidity at all times? Why?
10. What factors prevent the growth of culture from following strictly the exponential principle?
11. Is the growth of culture cyclical? Comment.
12. Will the second World War obliterate man's social heritage?
13. Is Italian culture superior to Ethiopian culture because of the superiority of the Italian race?
14. Would it be possible to declare a moratorium on inventions? If possible, would it be desirable to do so?

TOPICS FOR REPORTS

1. The inventional history of the airplane.
2. The principle of cross-fertilization as manifested in the development of the field of social psychology.
3. The origin and diffusion of the tobacco complex.
4. Effects of physical isolation on the culture of the southern highlanders.
5. Lost culture traits.
6. A comparative study of the culture of ancient and modern Rome.
7. Factors responsible for the loss of cultural leadership by Spain.
8. A comparison of inventions in war and peace times.
9. The growth of Japanese culture under the impact of western technology.

SELECTED READINGS

BOAS, FRANZ, *et al.*, GENERAL ANTHROPOLOGY, chapter V, N. C. NELSON, "PREHISTORIC ARCHAEOLOGY." Boston, D. C. Heath and Company, 1938.

An excellent recent statement bringing up to date the findings on the early origins of civilization as revealed by archeological finds associated with the skeletal remains of Neolithic and Paleolithic man. A good historical picture.

BOAS, FRANZ, *et al.*, GENERAL ANTHROPOLOGY, chapter VI, F. BOAS, "INVENTION."

An excellent account of the nature of primitive inventions. Not at all a systematic historical picture.

CHAPIN, F. STUART, CULTURAL CHANGE. New York: Century Company, 1928.

This book is characterized by some ingenuity in tracing the processes of growth of the non-material culture and the development of social inventions.

ELLWOOD, CHARLES, CULTURAL EVOLUTION. New York: Century Company, 1927.

An account of the changes in social institutions against a background of moral interpretation.

HOBHOUSE, L. T., G. C. WHEELER, and M. GINSBERG, MATERIAL CULTURE AND SOCIAL INSTITUTIONS OF THE SIMPLER PEOPLES.

One of the few books that give a reliable picture of the social institutions associated with the various stages in the development of the material culture. It will for a long time be a very useful book.

KROEBER, A. L., "THE SUPERORGANIC," AMERICAN ANTHROPOLOGIST, 19:163–213, 1917.

This paper is a classic, giving in short compass one of the best pictures of the superorganic that has ever been written.

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This book debunks the modern point of view on civilizational values and presents an excellent picture of early cultures with considerable sympathy from the point of view of primitives. A useful and readable account.

MASON, O. T., ORIGINS OF INVENTIONS: A STUDY OF INDUSTRY AMONG PRIMITIVE PEOPLE. London: W. Scott, 1895.

An old book, long out of date, but still furnishing in brief compass some information on the difficult subject of inventional origins.

RECENT SOCIAL TRENDS.

The opening chapter presents a picture of the important factors affecting modern cultural growth and change.

WALLAS, GRAHAM, OUR SOCIAL HERITAGE.

The first chapter of this book deals excellently with the concept of social heritage.

WALLIS, WILSON D., CULTURE AND PROGRESS. New York: McGraw-Hill Book Company, 1930.

The account of culture shows a keen insight into its nature, especially on the non-material side.

WALLIS, WILSON D., and MALCOLM M. WILLEY, READINGS IN SOCIOLOGY. New York: F. S. Crofts and Company, 1930.

This book contains some very readable accounts of the nature of social change, especially in modern times. An exceptionally useful book for undergraduate students in sociology.

XXV. OBSTACLES TO SOCIAL CHANGE

THE SUBJECT considered in the preceding chapter was how culture changes. In this chapter the topic is why culture often does not change; or why, in any case, it changes no more rapidly than it does. The question does not have great interest for the usual historian of culture because the duration of any resistance to change is short in comparison to the stretches of time which he surveys. But to contemporaries, who measure time in days and years, obstacles to change are important matters, especially for those who wish to make the world a better place in which to live. A delay even of a few years in the coming of old-age insurance was a most important matter for the indigent aged.

Changes are now occurring so rapidly that modern populations tend to be split into conservatives and radicals, according to the position they take relative to these changes. The political parties of many countries are organized on their differences in regard to change. The conservatives sit on the right in the House of Parliament in England, and the radicals on the left. In the United States, the cleavage is between Democrats and Republicans, neither of which party is wholly radical or wholly conservative. The radical is very much interested in furthering change, at least in certain directions, while the conservative in general resists most efforts to alter the present situation. Social reformers object to the obstacles to their programs, whereas those who benefit from the *status quo* resent the disturbance created by new movements. A study of the resistance to change may thus be of special interest to radicals and conservatives as a practical matter. But whether this knowledge has any utilitarian value or not, it helps to complete our understanding of the processes of social change.

Two different situations operate to retard cultural growth. Social change may be slow because of the relative absence of inventions, or because of the unwillingness of the group to accept such inventions as are available. The discussion which follows is organized around these two central factors.

The Scarcity of Inventions

THE FACTORS INVOLVED IN INVENTIONS

There is an island in the Zuider Zee where the inhabitants dress much as they did three hundred years ago. Houses without chimneys may be seen. The fire is made in the middle of the room and the smoke curls upward through a hole in the center of the roof, as was the method of heating houses before the chimney was invented in the fourteenth century.[1] Why has the culture on this island of Marken been so slow to change? The answer is the rarity of invention. Few inventions are made in any small island. Furthermore, the area has been relatively isolated, so that inventions made elsewhere do not reach the island, and the few that do come are not readily assimilated by a fisher folk on a small area with limited natural resources.

The infrequency of invention is, then, a cause of slow change in a society. Invention is the evidence of change. If there are few inventions, there are few changes. The question, then, is why are inventions scarce?

Invention is difficult, of course. A cure for cancer has not been discovered. It required a very long time for travel by air to become safe. Several hundred years were needed to develop the steam engine. Plainly it is difficult to produce inventions, especially technically complex ones. In analyzing the reasons for this difficulty, research has shown that invention rests on three factors. The *first* is the existence of elements necessary for a new invention. Since an invention is a new item made up from existing elements, it is clearly necessary for the component elements to be in existence before the new invention can be made. The supply of component inventions and materials is a factor in producing new inventions. The *second* factor is demand. An extreme case is necessity, whence arises the adage "necessity is the mother of invention." The *third* factor is mental ability. These will be treated in turn in the paragraphs which follow.

The supply of component inventions and materials. As was indicated in the preceding chapter, an invention may be defined as a new combination of existing cultural traits. In the telephone, various traits such as magnets, wires, disks, and current were combined into a device that never existed before, an instrument that carries the voice long distances

[1] John Beckmann, A history of inventions, discoveries and origins (London: H. G. Bohn, 1846), vol. I, p. 313.

over a wire. Leonardo da Vinci could not invent an airplane because the light internal combustion engine was not in existence in his time. Leonardo, it is assumed, had the necessary inherited mental qualities. It is also known that he worked on the airplane, for he left designs of flying machines. It must be concluded that there was some popular interest in the airplane, that is, some demand for it. However, if the elements that are needed for an invention are not all in existence, it is almost impossible for one person to invent the missing elements and also the invention into which they go. Most big inventions like the airplane, the steam engine, the harvesting machine, and the mechanical cotton picker required more than one person to invent them. For instance, in the case of the development of the incandescent electric light, there were eleven inventions of it before Edison made his in 1878. These eleven inventions, made between 1840 and 1878, were produced by eleven different men and no one of them made more than one invention on the incandescent light. It cannot be said that each of these eleven men contributed a part to the invention made by Edison and that he added the twelfth part, for there was some duplication and the work of all the eleven men may not have been known by Edison. Yet it is true that the work of many inventors on the incandescent light was needed before Edison made his invention. Indeed, if work on the dynamo and the arc light be considered as a preparation for the incandescent bulb, then the work of 23 men preceded Edison's light, and the work of 19 more was needed between 1878 and 1913 to improve the light.[1] The first person who makes the invention work is usually given the credit, though there be a dozen others who have contributed to make it work.

Variation in the cultural preparation for an invention is extremely great from one period of history to another or from one century to another. In accounting for the fact that one people, say the English, have many inventions and another, such as the North American Indians, have not, consideration should be given to the degree of cultural preparation in the two societies. Modern Europeans and Americans are making frequent discoveries in scientific medicine, while the American Indians made few. Yet the need for scientific medicine was greater among the Indians, for their death rate was higher and whole tribes are known to have died in epidemics. Certainly the Indians realized the need, and their medicine men worked hard at the problem. But they did not have

[1] HAROLD W. SWEENEY, CERTAIN ASPECTS OF INVENTIONS IN THEIR RELATION TO CULTURAL EVOLUTION, M.A. thesis, University of Chicago, Chicago, 1929, pp. 108–12.

the cultural preparation. The absence of cultural preparation, the first factor mentioned, is then an important obstacle to social change.

In accounting for differences in the number of inventions in different periods of history, the supply of component inventions is an important explanatory factor. Inventions are more numerous now than in the Middle Ages because we have more material with which to work. It is sometimes assumed that the reason is our greater mental ability today. But this assumption is hardly justified, if by mental ability is meant inherited mental ability, and not the mental ability due to education. Necessity is hardly an explanation either, for in earlier times the scarcity of inventions would seem to indicate a greater need than now.

Demand for invention. The demand for inventions rests not only on human needs, such as health, but also on the social valuations existing in a given culture at a certain time. The Pueblo Indians value the dance very highly, as do many primitive peoples; they have as a result a great variety of dance forms and practices, evidences of inventions. The Spartans valued highly the military life. The Australian aborigines turned their attention to religious practices. There is a flowering of forms in those phases of culture that are highly valued socially. The same phenomena are observed in the college curricula. In the early days of colleges in the United States, large proportions of graduates became preachers. During the middle of the nineteenth century, faculty and student interest shifted to the natural sciences. In more recent years there has been a rise in the appreciation of the social sciences. Social values vary at different times, encouraging effort in the fields valued.

The demand, however, does not always create the invention. Because of inadequate cultural preparation, primitive peoples did little to advance scientific medicine, despite the existence of both demand and effort. The demand for a mechanical cotton picker was probably greatest after the invention of the cotton gin at the beginning of the nineteenth century, when slaves were relatively scarce, yet the demand did not produce the desired invention. Although there were frequent attempts to supply this demand, they proved abortive because of the incomplete cultural preparation for the invention. The demand for fast transportation has always existed. We probably need it less now than formerly, yet important inventions are occurring in this field.

On the other hand, where there is a prodigality of cultural elements, demand is a factor in producing the invention. For example, with the

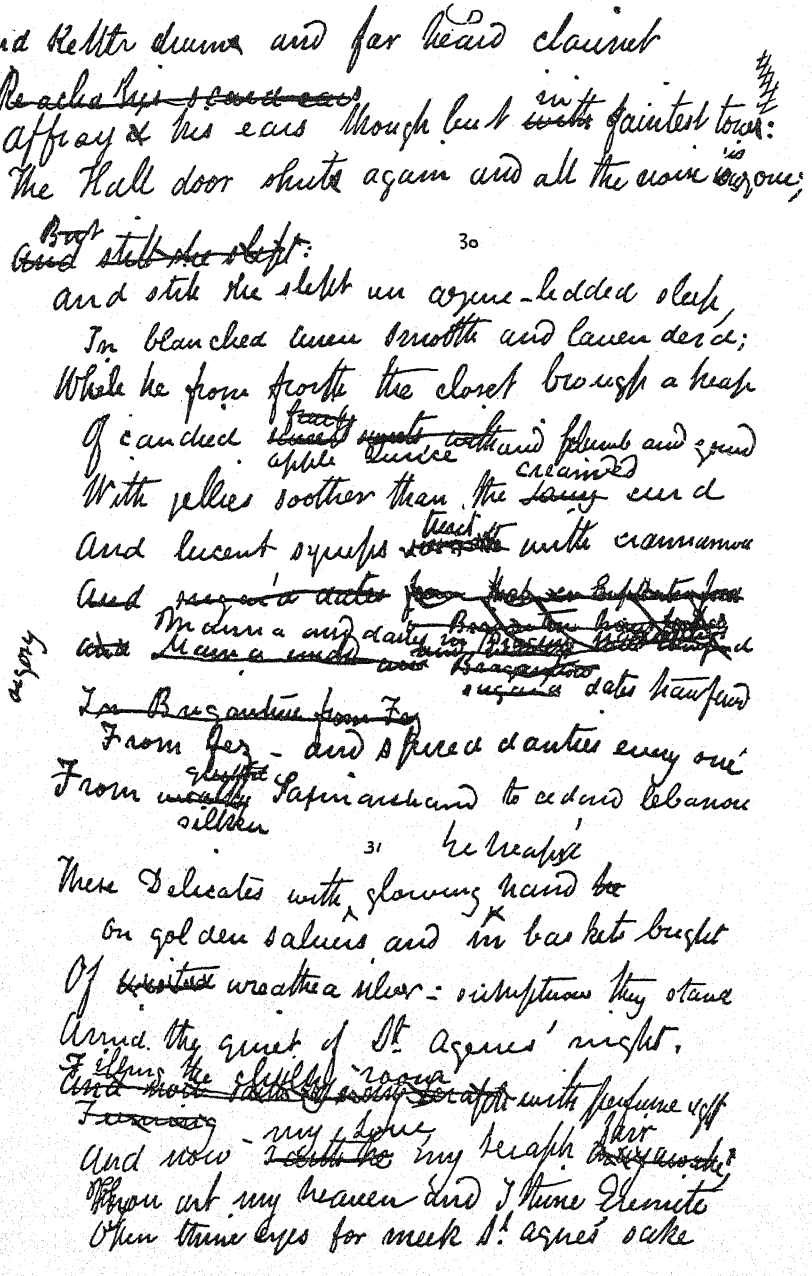
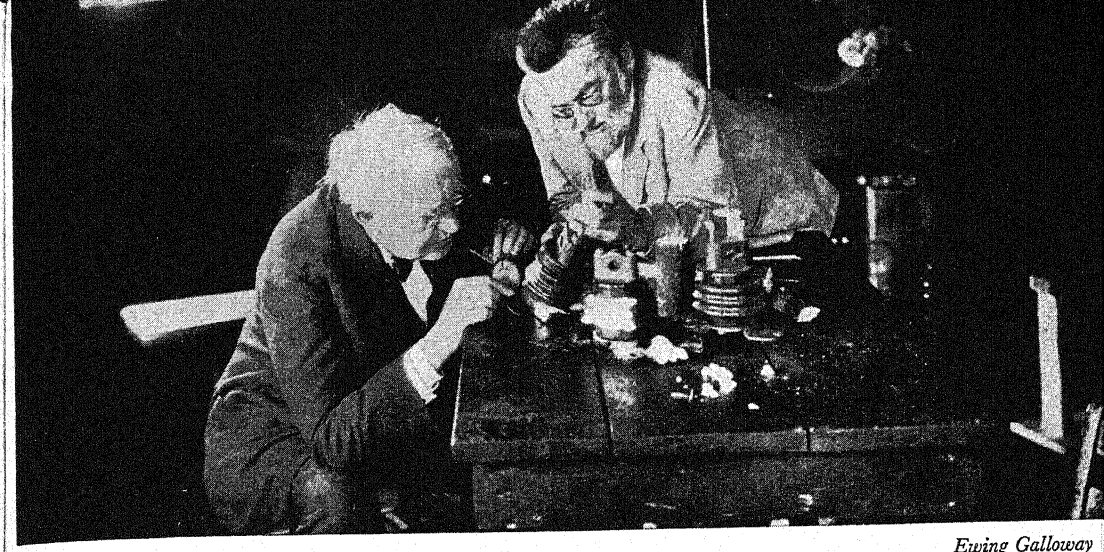
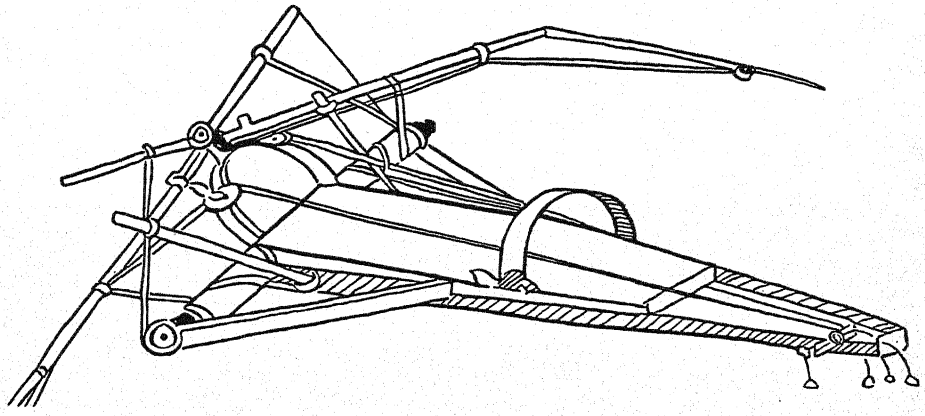


FIGURE 139. FACSIMILE OF A PAGE FROM KEATS'S MANUSCRIPT FOR THE EVE OF ST. AGNES

(From the original manuscript in Harvard College Library.) *Edison once remarked that inventing was largely hard work, rather than joyous spontaneity. This is generally the case with artists and writers also.*



Ewing Galloway



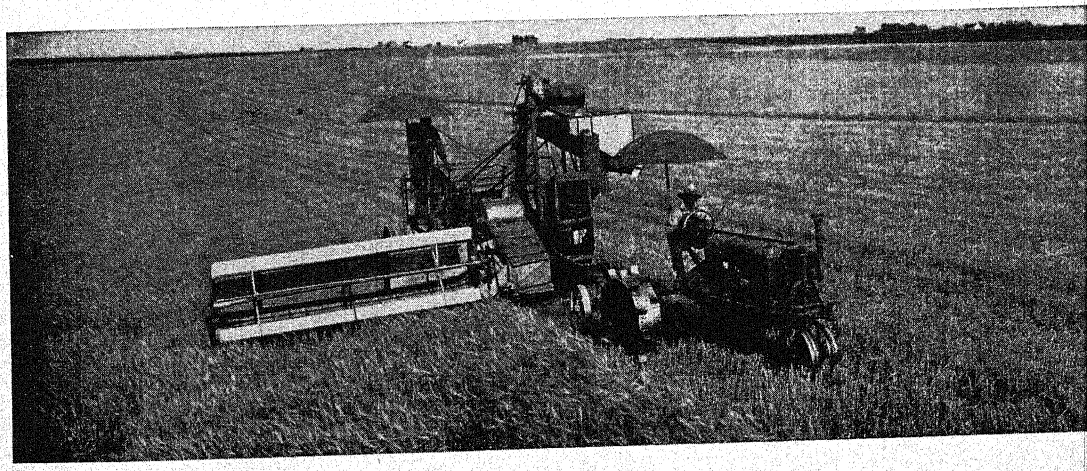
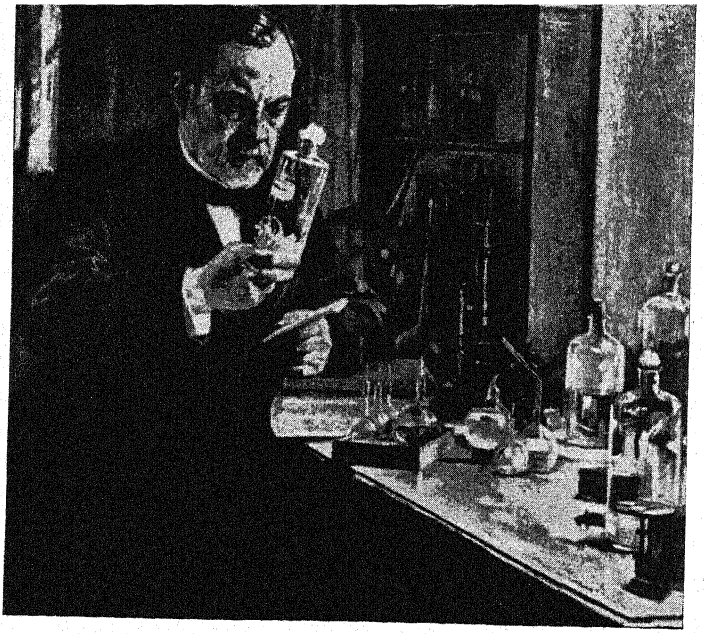
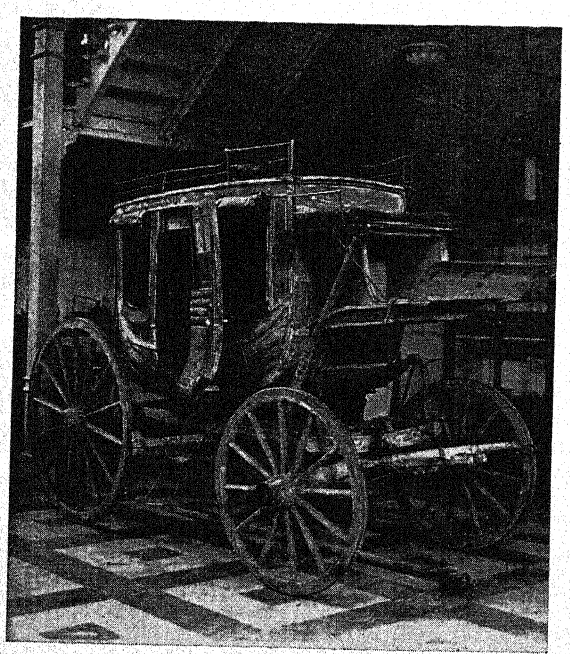


PLATE 13. THREE FACTORS IN INVENTION





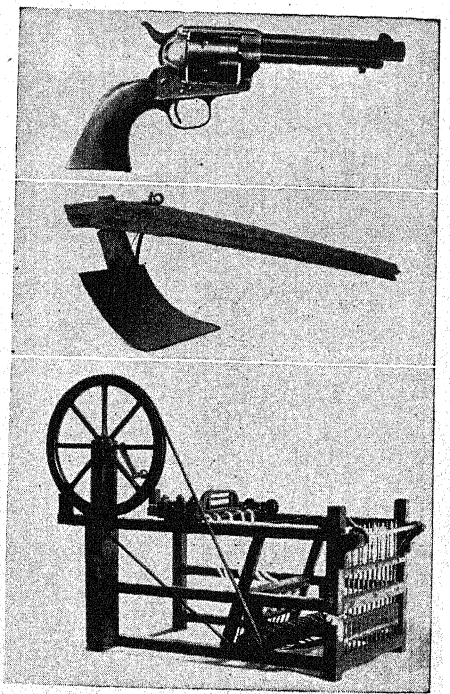


PLATE 14. USEFUL INVENTIONS THAT HAVE BEEN OPPOSED

A law was passed to prevent the use of coaches in Hungary in 1523. When Pasteur made his discoveries about fermentation, the great Liebig refused to believe that yeast is alive and even declined to look through the microscope to see it. The six-shooter, which was of such value in the conquest of the Great Plains, was thought by the United States Government in the eighteen-thirties to be of no military significance. The iron plow was rejected by New Jersey farmers in 1797 on the grounds that the iron would poison the soil. In 1768 spinners broke into Hargreaves's home and destroyed his spinning jennies.

introduction of the airplane came an increased demand to reduce the hazard of fog. The result has been some twenty-five inventions and discoveries for lessening this hazard.[1] There is now such a tremendous amount of scientific knowledge that variations in demand may be the occasion of inventions in one field rather than another. For example, support for scientific research in universities varies greatly by subject matter. There is much less demand for research in the field of Sanskrit than there is in the field of business, much more money is available for business research, and many more investigators are doing research in this field. Likewise there is now much more interest in the family as a subject for research than there was before many women went to college, whether this be the cause of the increased interest or not. In America and western Europe there is a high valuation of technological achievement, much more so than was the case in India at the time it was conquered by Clive. At that time India was distinguished by its great interest in religion, and probably changes in rituals and the rise of new sects resulted from this social valuation. Again, cultures differ greatly in their interest in art, and their creativeness in art forms varies accordingly. We conclude that the scarcity of invention either in any particular segment of culture or in any given culture as a whole is likely to be due in part to an unfavorable social evaluation.

Mental ability and invention. It must be assumed that invention requires a good deal of mental ability. Edison used to testify, seriously or not, that invention required hard work rather than genius. It may also be noted that some inventions in early times must have been accidental, as for instance, the invention of fire-making by striking two stones together. Even in the laboratories of inventors today many inventions are unexpected by-products. Despite these facts, it would be an error to discount the mental ability required for invention.

The average man, however, does not appear to discount mental ability as the source of invention. He rather maximizes it. To him any invention can be made at any time, if only we have the requisite mental ability. This might be true if mental ability were an unlimited product. But such a view of mental ability is not very realistic, for there are many things our human mind cannot do, especially under fixed cultural conditions. Mental ability is perhaps overvalued as a factor in invention, as will be shown in the remaining paragraphs of this section.

[1] S. C. GILFILLAN, "THE PREDICTION OF INVENTIONS," chap. II, TECHNOLOGICAL TRENDS AND NATIONAL POLICY, p. 22.

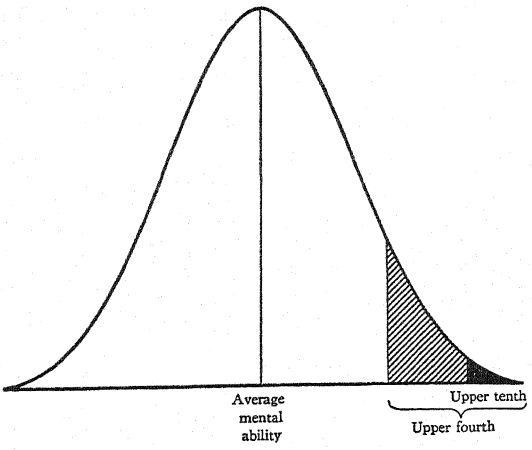


FIGURE 140. PROPORTIONS OF THE NORMAL PROBABILITY CURVE

The black area represents 1.5 per cent of the total area under the curve, and the shaded and black areas together represent 13 per cent of the total area. If a biological trait of inherited mental ability were measured on a line from the least to the greatest, then the people of the mental ability represented by the upper tenth of the line would constitute about 1.5 per cent of the total area. If an inventive genius occurred only in this upper tenth of the normal curve, then in a country like the United States, with its 130,000,000 people, it would be expected that on the basis of inherited mental ability there would be about 1,950,000 inventors. If a position in the upper quarter of the range of inherited mental ability were required, then there should be about 16,900,000. Clearly, other factors besides inherited mental ability enter into becoming an inventor.

It is necessary to distinguish between inherited mental capacities and learned abilities. It is assumed that some individuals have a greater native capacity to invent and others less, much as some persons are tall and others short. The distribution of most biological phenomena, simple or complex, is in the form of a normal frequency distribution. If the inherited inventive capacity of a large number of persons could be measured and plotted on a curve, it would be bell-shaped with those of average capacity in the middle, much as in the case of the distribution of stature. If a position in the upper half of the curve were the sole prerequisite to being an inventor, then there would be in the United States 65,000,000 potential inventors. If, however, inventors should be found only in the upper tenth of the scale, then in the United States there would be 1,950,000 persons with the requisite inherited mental power.[1] Even if inventors were drawn only from the extreme upper

[1] WILLIAM F. OGBURN, "THE GREAT MAN VERSUS SOCIAL FORCES," SOCIAL FORCES, 5:226, December, 1926. These numbers are simply the area of a segment of the normal frequency curve, the total area of which is the total population of the United States.

one hundredth of the scale there would still be 200,000 potential inventors. It is concluded therefore that in most large populations of the same race there is a surprisingly large number of individuals with inherited capacity sufficient to be inventors.

Yet the number of inventors is small. The United States Census lists 2023 individuals who call themselves inventors. Of course, the number is actually much larger, since inventors may be listed under other occupations. About 50,000 patents are granted each year. But even so it is seen that the actual inventive ability is much more rare than the inherited capacity. The difference is due to the fact that all the individuals with sufficient inherited capacity are not trained to invent; nor does society encourage invention on the part of all those who are properly trained. Thus, in anthropology, there are numerically very few research workers who are making scientific discoveries. Theoretically, if inventors are found in the upper half of the curve of mental ability in the United States, there might be 65,000,000, so far as inheritance is concerned. But the time and money required to produce Ph.D.'s in anthropology cut the number down, and then the demand for anthropologists is relatively so slight that society will support only a few. So it is too in other fields. Besides, there are things for men to do other than the making of inventions.

In any large population, then, the scarcity of invention is due to lack of attention given to invention, rather than to a scarcity of inherited ability. Since the inherited bases exist, invention could be stimulated by more educational training and application. One hesitates to attribute the scarcity of invention per capita in one country as compared with another to lack of inherited mental ability. The number of inventions per capita is very much greater in Switzerland than in India; [1] but the reason is not likely to be found in the variations in the inherited mental ability of the two peoples, who belong to the same race, though to different sub-races. India may have fewer inventions because less attention is given to the training and application of inventive ability, or because of a cultural base which contains fewer elements that go to make an invention. The variation in inherited mental ability from region to region is likely to be less than the variation in social valuations or in the supply of component inventional elements. By similar reasoning it is argued that the rate of progress, that is, cultural change, can be accelerated by increasing the support and training of inventors.

[1] S. C. GILFILLAN, "INVENTIVENESS BY NATION," GEOGRAPHICAL REVIEW, 20:301–04, 1930.

THE DIFFICULTY OF MAKING AN ACCEPTABLE INVENTION

Making an invention today usually requires a series of steps somewhat as follows.[1] First, the idea of the invention is conceived more or less vaguely or inadequately. There were many vague ideas about flying before they became realistic from the point of view of invention. Second, the idea is developed or thought out. Third, a drawing or model is made, setting forth the principle of the invention. It may be patented at this stage. The patent office has records of an electric musical instrument that plays from sound photographed on glass. The drawings and specifications are on file, yet nothing is done to develop the patent further. Fourth, the invention is produced so that under the special conditions of the laboratory it will work. The great French inventor, Claude, had successful models for producing power from the differentials between the warm water at the surface of the ocean and the cold water underneath long before he installed his invention off the shore of Cuba to offer power for sale. Patents are frequently not granted until this stage. Fifth, improvements are made so that the invention can be worked by a purchaser. The requirements of a mechanical invention for the ultimate consumer are durability, simplicity, safety, economy, and repairability. A multiplying machine that recorded multiplier, multiplicand, and product was once marketed, but it was frequently out of order and the difficulty of repair was so great that it was abandoned. Sixth, even after the invention is marketed, improvements may be added for some time in the interests of meeting the requirements of consumers.

Need of improvement through use. Many inventions of the simpler sort, such as a slot machine, do not go through just these stages, and perhaps most of the earlier inventions, such as chipped flint, did not require such a course of development before being used. Practically all inventions, however, go through a long period of improvement through use. Social inventions also do not follow quite this course, since their demonstration usually requires social acceptance. Woman suffrage was probably not a social invention until it was adopted. It was never patented. Since its adoption in the United States, it has not been modified. But the great effort involved in bringing an important mechanical invention to fruition may be judged from the fact that, generally speaking, there is about a quarter of a century between con-

[1] WILLIAM F. OGBURN and S. C. GILFILLAN, "THE INFLUENCE OF INVENTION AND DISCOVERY," chap. III, RECENT SOCIAL TRENDS (New York: McGraw-Hill Book Company, 1933), p. 132.

ceiving the idea and demonstrating its workability. The moving picture was in process of development in the middle of the nineteenth century, but did not come into use until the first decade of the twentieth century.[1]

It is frequently assumed that the difficulty in inventing lies in the lack of insight necessary to get the idea. It would seem, however, that ideas for inventions are originated by many different persons. For instance, there has been reported, from various sources, the idea of a steel highway to replace the concrete one. The idea might readily occur to anyone riding in an automobile over a broken concrete highway. To most of those who make the suggestion it seems to have come when they drove over a steel-covered manhole which was not worn down, while the pavement around it was. If this is the common origin of the idea, it might be expected frequently. No great training is required for such insight, and there are in the United States perhaps from fifty to a hundred million persons who some time or other ride over rough, bumpy pavement. The difficulty in obtaining iron highways lies not in getting the idea but in working it out to meet the requirements of economy, safety in wet weather, going up and down sharp grades, and reflection of light. Road-making techniques need also to be perfected.

Usefulness must be demonstrated before invention is widely adopted. Unfortunately, many ideas are patented before their usefulness has been demonstrated, and a large number of patents are never put to use. In France the patentee is required to pay a small sum every year if he wishes to hold his patent during the 14 years of its life. The fourteenth year finds only about five per cent paying the small annual amount.[2] In the late nineteen-twenties in the United States the invention of a wrist watch that could be set hourly by radio waves was announced, but nothing seems to have come of it.[3] A decade ago a newspaper was set up in one city by teletypesetters in another. It was thought that many newspapers might be thus set up at one time. The teletype machine is now in use but not for this purpose. The making of sugar from sawdust was known in 1927, but there is no news of its use now. Newspapers were printed several years ago in Iowa on paper made from cornstalks but cornstalks are not used in making paper today. The high mortality rate of inventions may be due not wholly to their imperfections, but also to the introduction of new or better substitutes.

[1] WILLIAM F. OGBURN and S. C. GILFILLAN, *op. cit.*, p. 146.

[2] Unpublished data collected by Peter Klassen.

[3] WILLIAM F. OGBURN, "NATIONAL POLICY AND TECHNOLOGY," in TECHNOLOGICAL TRENDS AND NATIONAL POLICY, p. 7.

In the field of social invention, it also takes a long time to mature the idea so that it becomes workable. The time required to develop the income tax in the United States was measured in decades. The invention of the juvenile court also required a quarter of a century, more or less, for the idea to develop to the point of its adoption in Chicago at the beginning of the twentieth century. Many social inventions have never been nurtured to the point where they are workable. Such was clearly the case with the Townsend Plan which was presented during the dark days of the depression of the early nineteen-thirties. This plan called for the payment of $200 a month to all persons over 65 years of age. The sum of money required was so large that the budget of the nation could not stand it. During the depression the White House mailbags brought in for a time hundreds of letters a day proposing some plan to cure the depression, or to make another impossible.[1] Practically all of the proposals were not developed enough to be called social inventions, but were merely half-baked ideas. The prohibition of the sale of liquor throughout the United States was also a social invention that did not work. Not all mechanical or social inventions are practicable, and the difficulty of nurturing an idea to the point of maturity is one of the reasons for the slowness of culture to change.

Resistances to the Acceptance of Inventions

Opposition to both material and social inventions

Even after inventions have been made, the world is not always ready and willing to adopt them. The Dyaks were accustomed to felling trees by peeling them down strip by strip, and when shown the quicker and better method of cutting in a V-shaped notch with an axe were unwilling to make the change.[2] Pasteur's discovery of germs as a cause of disease was bitterly opposed by the medical profession for a long time. Harvey's discovery, in the first part of the seventeenth century, that the blood circulates was strongly opposed, especially by the physicians and scientists of the time. Harvey claimed that no man over forty accepted the doctrine of the circulation of the blood when it was first presented.[3] "At least twenty anatomists wrote against it, among them Primrose, Aenylius

[1] Oral report made to the authors.

[2] R. R. Marett, Anthropology (New York: Henry Holt and Company, 1912), p. 184.

[3] Robert Willis (tr.), Introduction to the Works of Harvey (London, Sydenham Society, 1847), p. xlvii.



FIGURE 141. THE BEST WAYS OF DOING THINGS ARE NOT ALWAYS ADOPTED

The Dyaks were accustomed to felling trees by peeling them down strip by strip, and when shown the more efficient way of cutting in a V-shaped notch with an axe refused to make the change.

Parisanus of Venice, Johannes Vesling of Padua, Caspar Hoffmann of Nuremberg, Caecilius Folius of Venice, and the elder and younger John Riolanus of Paris. For the most part the authority of Galen was evoked against him. Caspar Hoffmann, who himself had rejected Galen, refused dogmatically to perform the experiment and accused Harvey of having 'impeached and condemned nature of folly and error.' " [1] Some of these anatomists are remembered today chiefly for the reason that they opposed Harvey. It is interesting how many of the opposition appealed to the authority of the great Galen rather than to the evidence of experiment.

The use of coal was prohibited in England in the reign of Edward I, and a citizen was tried, condemned, and executed for burning "sea cole." [2] A bill was introduced in the House of Commons at the instance of the British Admiralty forbidding the use of steam power in the British Navy.[2] That there was opposition to such useful inventions as railroads, automobiles, and the telegraph is surprising, yet such was the case. The

[1] BERNHARD STERN, SOCIAL FACTORS IN MEDICAL PROGRESS, p. 47.

[2] BERNHARD STERN, "RESISTANCES TO THE ADOPTION OF TECHNOLOGICAL INNOVATIONS," TECHNOLOGICAL TRENDS AND NATIONAL POLICY.

opposition of Wall Street to the automobile has been often proclaimed by Henry Ford. Chauncey Depew warned his nephew not to invest $500 in Ford stocks because "nothing has come along to beat the horse," and J. P. Morgan and Company refused a large investment in a company that was later very successful as General Motors.[1] Commodore Vanderbilt opposed the adoption of air brakes, and told Westinghouse, the inventor, that he had no time to waste on fools.[2] Research shows that even in our technological age there has been substantial opposition to very many of the major inventions. Gilfillan [3] states, in regard to improvements in ships: "The jib and other fore-and-aft sails, the rudder, steamboat, screw, high pressure, surfaced condensation, compound and triple expansion, improved rudders and rotorship have had to fight their way. Only the compensated compass do we recall as meeting what might be called an immediate acceptance."

That social inventions meet with opposition is well known. In the United States opposition to woman suffrage lasted half a century or longer. It required decades to adopt the income tax, the direct election of senators, workmen's compensation, and similar reforms. The opposition to simplified spelling is still effective, though attempts to launch it have been made by so influential a person as a president of the United States. Parliamentary reform in England was opposed for centuries by a long line of distinguished leaders and rulers. The resistance to the abolition of slavery in the United States was so strong that it was a factor in a long and bitter war. Governmental reform in France was opposed so vigorously by those in power that the culmination was a revolution in 1789. Christianity itself was fought all the way, and Jesus, the founder, was killed by the opposition.

It is a curious phenomenon that some of the greatest blessings of the human race should have been bitterly resisted, at times with the spilling of blood, before humanity was allowed to profit by them. Such was the case with the germ theory of disease, antiseptics, vaccination, vivisection, factory production, labor-saving machinery, the use of coal, the carriage, the railroad, the income tax, woman suffrage, social insurance, the abolition of child labor, the elimination of slavery, the republican form of government, democracy, and Christianity. It is as though there

[1] BERNHARD STERN, "RESISTANCES TO THE ADOPTION OF TECHNOLOGICAL INNOVATIONS," TECHNOLOGICAL TRENDS AND NATIONAL POLICY.

[2] HORNELL HART, THE TECHNIQUE OF SOCIAL PROGRESS, p. 631.

[3] S. C. GILFILLAN, THE SOCIOLOGY OF INVENTION (Chicago: Follett Publishing Company, 1935), p. 106.

were enemies within the gates; as though many of us did not want to increase our blessings. One wonders whether today there may not be blessings which we reject. Will the opposition to Freud prove to be as misguided as was the opposition to Pasteur? Will psychoanalysis prove of benefit to mankind as was the germ theory of disease? The question arises whether the opposition to health insurance today is comparable to the opposition to workmen's compensation a generation ago. Where we take our stand on social change is seriously significant.

There is, though, another side to this opposition to social change. We have so far spoken of the resistance to benefits proposed for us. But not every proposal is an unqualified good. Is the totalitarian state, which is suggested as a substitute for democracy, desirable? Some years ago Judge Lindsey proposed companionate marriage as a solution for some of the problems of youth.[1] Would the adoption of such a form of trial marriage be a blessing or a curse? Clearly not every proposal for social change is a step in the direction of progress. Some proposals may be harmful. Others may prove to be unworkable. Was this the case with the national prohibition of the sale of liquor after the World War? Unfortunately there is no scientific measuring stick of values, moral or otherwise, as there is for stature or distance.[2]

However, some analysis of the causes of resistance to change may help us to be more intelligent in our attitude toward specific proposals. Indeed all the other chapters of this book, as well as this particular one, should be of such aid. It is desirable then to inquire what are the obstacles to new developments in culture. Some of the major resistances to change will be listed and discussed.

Intolerance of early inadequacies and imperfections. Of the thousands of inventions that are recorded and never adopted, many are inadequate, for one reason or another. Some break too often and too easily when used by the average consumer. Such was the case with the early telegraphone, which recorded dictation on a spool of magnetized wire. Sometimes repairs are difficult to obtain because of the special skills needed, as with certain mechanical computing machines. Some new inventions have disadvantages, such as too much noise or vibration, that are not compensated for sufficiently by the advantages they possess. Again, an invention may at first perform its services very inadequately. Thus the moving pictures were at the outset very crude. In other cases

[1] BEN LINDSEY, COMPANIONATE MARRIAGE (New York: Boni and Liveright, 1927).

[2] For fuller treatment of this point, see Chapter XXVIII.

the costs are prohibitive, as is true of the inventions creating artificial climate.

Social inventions have imperfections too. In the nineteen-thirties the United States attempted to regulate the prices of agricultural products by having the government buy at good prices the surpluses in banner years, to be held for lean years or to be sold in the foreign market. This plan did not work well because the good prices, which the government paid to keep the prices up, stimulated an increased production, which, of course, again increased the supply, thus lowering prices. This was exactly what the government was trying to avoid. Many social schemes thus have imperfections.

Often these inadequacies could be remedied in the course of time, if the world were patient, sympathetic, and financially co-operative. Much of the opposition to new tools is due to these early imperfections. Many times also there exists some kind of acceptable substitute, which may even be better than the new invention in its inadequate condition. Thus ordinary wool is better than the woolen-like fabrics which can now be manufactured chemically from milk. The steamboat was not at first as good as the sailboat. The writing pen, which could be bought for a penny, did very well in comparison with an imperfect typewriter costing $200. Public employment exchanges work crudely at first, are a cost to the taxpayer, and there is the existing substitute of the private employment bureau. The hostility of the public to a new invention in its crude and costly form, when there are available substitutes, and the unwillingness of the opposition to look forward to an improved or cheaper product are serious obstacles to change. In other words, change could be made more speedily if there were tolerance for the early imperfections in cultural innovations.

Opposition to inventions causing serious social dislocations. Some parts of culture are so closely interrelated that an invention changing one part may mean a wholesale change in the other parts. For example, the narrowness of a railroad car has been criticized, both for a club car, a sleeping car, and for certain uses as a freight car. Yet to introduce a railroad car twenty-five feet wide would necessitate widening the rails. This would have to be done for all lines, or nearly all, because of the need of transferring cars. If the lines were widened, all equipment built for the present track would have to be scrapped. Changing the speed of railroad trains causes dislocations as truly as changing the size of the coach. Lord Stamp,[1] a British railroad magnate, says: "One may con-

[1] JOSIAH STAMP, THE SCIENCE OF SOCIAL ADJUSTMENT (London: The Macmillan Company, 1937), p. 52.

sider the analogy of a railroad system which has evolved, partly empirically and partly consciously, as a co-ordinate whole. Suddenly, the customary speed is radically changed, and then it may be that all the factors are inappropriate — distance between signals, braking power, radius of curves, camber or super elevation, angles of crossings, bridge stresses. The harmony has been destroyed.... The analogy for the social system is obvious." To increase speeds is a costly and radical change in a highly integrated system. It is being done under the threat of competition, and is producing a new device, the zoning of the tracks for different speeds.

Social inventions are like mechanical ones in that they are closely interrelated with other parts of culture. The employment of married women outside the home dislocates scores of adjustments in the home and society, just as changing the speed of railroad locomotives produces dislocations in the railroad organization. The employment of women in factory, office, and store involves profound changes regarding children, servants, schools, relations with husband, manners, chaperonage, social life, evening entertainments, education of women, attitudes toward marriage, and work. To change these customs and social organizations is as difficult as it is to widen the tracks of railroads and acquire a new set of rolling stock. For Ataturk Kemal to have modernized Turkey in its social institutions and customs, such as dress, manners, and marriage, was as much an achievement as modernizing its system of production.

This illustration suggests the difficulty of one culture area importing an invention from another one. To do so involves incorporating the new invention into the old culture pattern with all the necessary changes in the old arrangements. It is clear that the importation of a single major invention brings difficulties, and to take over a whole series of them as China is doing is really a stupendous undertaking. To the extent that the Mexican culture in the twentieth century is different from that of the United States, to that extent will it be difficult for Mexico to take over phases of the culture of its northern neighbor. It is much easier for the United States to import social insurance from England and Germany because of the greater similarity of American culture and that of these other countries.

The Indians borrowed certain elements of European culture, and there was some borrowing the other way about as well. For instance, the Indians of the Plains took the horse from the Spaniards in the sixteenth century. The horse, though dislocating Indian society somewhat,

brought great benefits. The horse was a very great advantage in hunting the buffalo, upon which the Indians depended. The American farmer, on his part, adopted the Indian maize complex almost in its entirety. This includes not merely the propagation of maize, but the detailed processes of preparing the soil, planting the grain, protecting the crop, gathering the ears, and preserving the seed. The food production processes, which were also numerous, were likewise appropriated.[1] These examples suggest certain characteristics of an invention which influence its adoption by an alien culture. In general it may be said that, to be adopted readily, an invention must meet a need and yet must not disturb or dislocate the society greatly. As may be judged, the horse and maize met a definite need. Besides, they were not greatly disrupting forces.

Nearly all big inventions produce some disruption in the balance of the part of culture in which they occur. For instance, a calendar with the same number of weeks in each month is an advantage. Such a calendar was achieved, it may be noted, by the Mayan Indians before the coming of the white man. Modern industry would like such a calendar. It would mean, however, a readjustment of scheduled holidays, and many religious authorities object to changes in the dates of the holy days. A new calendar would also make the reading of history more difficult, and for a time complications and confusion might occur in changing from one calendar system to another. Hence the adoption of such an invention means a weighing of the advantages against the amount of disorganization that might result.

THE DIFFICULTY OF ADOPTING A SUBSTITUTE FORM

To use old forms is easier than to make or adopt new ones, and there is in every culture a tendency for old forms to persist. Such persistence of the old is, of course, an obstacle to change. Thus the festival at the winter solstice, called Christmas by us, was a pagan custom in northern Europe before the coming of Christianity. Christianity did not invent a new type of celebration, but rather took over an old existing form with its mistletoe, evergreens, system of gifts, feasting, masks, and songs, adding to it the birthday idea, with ritual, songs, and other accessories indicative of the Christian religion. It might not have been difficult for the Christians to invent a new festival, but it would have been more difficult to get the new ceremonial adopted than to change the old one that was already in

[1] CLARK WISSLER, "ABORIGINAL MAIZE CULTURE AS A TYPICAL CULTURE-COMPLEX," AMERICAN JOURNAL OF SOCIOLOGY, 21:656–66, March, 1916.

existence. The difficulty in making a social invention may not be as great as the difficulty in getting it diffused.

In the special case of the mistletoe, its continued use at Christmas may be called a survival, for its use survives from the days of the Druids when this green which grew in bare trees without any soil was supposed to possess certain mystical properties. At the present time mistletoe is used without any of the mystical religious significance it had in pagan times. A survival is the name given a cultural form that is thought to have outlived its usefulness, yet persists.[1] The tails to a man's dress suit are a survival of the days before carriages when men with long coats rode horseback. The skirt of the coat was finally cut back to avoid rubbing on the horse; it survives as tails to the dress coat.

A survival is a special case of cultural inertia. But it should be noted that no survival is completely useless.[2] Mistletoe has a decorative function, and the tailed dress suit is a form of distinction. Again, it is probably not so much the difficulty of inventing a new festival at Christmas, or of inventing a new evening coat that will distinguish a person dressed for the occasion from one who is not, as it is of getting the new invention adopted when the old one will serve the purpose as well.

Cultural forms serve more than one function. This resistance to change on the part of a cultural form seems, upon further analysis, to rest on the fact that the form may serve more than one function. Thus Christmas serves a social purpose as well as a religious one. It is an occasion of festivity on approximately the darkest day of the year, signalizing the fact that lighter, brighter days are coming. Hence the function of festival-making causes it to persist, even if the religious function is changed or dropped. Again, the use of mistletoe was to the Druids religious as well as decorative. The decorative function causes it to persist, even after its major function of religious worship has been lost.

It is, of course, quite possible that a new invention might work better than either a cultural form already available or an adaptation of it. The new city manager plan may give better municipal government than that which the old members of the municipal council can provide when they undertake the functions of responsibility for detailed administration. The continuance of an old system in the face of changing needs is a type of resistance to social change. The situation is more serious when a new invention can do the task better than an old cultural form.

[1] E. B. TYLOR, PRIMITIVE CULTURE, chap. III.

[2] WILLIAM F. OGBURN, SOCIAL CHANGE, p. 152.

ECONOMIC COSTS

Many changes occur as a result of organized effort. The adoption of the city manager plan in any large city does not take place spontaneously, as did the adoption of the horse by the Plains Indians. Organized effort favoring the city manager plan means the publication and distribution of printed material, the making of many speeches, the use of the radio, the influencing of political candidates and newspapers. Such activities usually necessitate a central office with a paid staff. A campaign of this nature may be carried on for years. The period required to put a practical proposal into effective operation may be quite long; according to the measurements of Beatrice and Sidney Webb, the average time interval is nineteen years.[1] Promotional work to effect a change, then, may in modern times require a large expenditure of time and effort, costs which may be measured in economic terms.

These costs do not tell what the obstacles are that must be overcome; whether they are inertia, habit, prejudice, ignorance, or other resistances listed in these paragraphs. Nevertheless to cope successfully with these resistances to change in our society calls for the expenditure of money. Those who support a cause or an invention must reckon on the expenditure of some money to secure the adoption of their innovation.

Even a mechanical invention that is used in production or that is marketed costs the producer something in money. He, however, expects to make a profit, hence has an incentive to use the innovation in industry. Private industry adopted very quickly the motion picture and the radio, much more quickly than did the schools. To the schools these represent additional costs and are not a source of profit. Industry also reckons on an expenditure to market a new product. A company may spend $100,000 to advertise a new toothpaste before it is placed on the market. They do this because they expect, through a large volume of sales, to earn back the costs of advertising. The expenditure of a large sum of money might go a long way toward getting us a better calendar or in bringing about the adoption of the metric system in our country.

IGNORANCE

A doctor makes an electrical instrument that purports to analyze a drop of blood in such a way as to show whether the individual from whom the blood comes has tuberculosis or a venereal disease. Before sanctioning

[1] JOSIAH STAMP, THE SCIENCE OF SOCIAL ADJUSTMENT, p. 53.

its adoption, however, doctors want to be quite certain that the invention will do what it purports. Medical discoveries cannot be allowed to play irresponsibly upon the passionate hopes of mankind to ward off death and disease. It is no surprise then that doctors should be skeptical of the new. The opponents of Pasteur were uncertain of the value of his findings. The prevailing ignorance about the new germ theory of disease was not easy to dispel. But scientific skepticism hardly justified Liebig in refusing to look through the microscope to see the live cells in yeast.[1] Likewise through ignorance the iron plow was at first opposed because it was thought that the iron would somehow injure the soil and the seed.

Experiment is the ready answer for such doubts, but when we come to social inventions, the testing is not so easy as is the case with a mechanical model in the laboratory. Should we adopt a new system of money based upon "social credit"? There may very well be honest doubts as to whether "it will work." In any case, if the adoption of the plan calls for a decision by a large group of persons, it takes time to make a study of its provisions, no matter how much of a boon to the human race it may eventually become. But when the railroad express companies oppose the introduction of the parcel post by the U.S. Post Office, on the basis of doubt as to whether it will work, we may well be suspicious of such doubt, especially if it is expressed frequently, loudly, and long.

THE NATURE OF HABIT AND RESISTANCE TO SOCIAL CHANGE

Immigrants to America continue to eat spaghetti or goulash and do not learn to eat clam chowder and apple pie. The culinary art they practiced in the old country persists in the new, and they do not learn readily to prepare the dishes of their new homeland. It is thus said that habit is a resistance to social change and explains the persistence of old cultural forms. But since cultural forms are habits (excepting material objects like buildings) then the statement in the preceding sentence merely means that habits explain habits. Even though it might seem that we are explaining something in terms of itself, still an inquiry into the phenomenon of habit does throw some light on resistance to change.

Conservatism of old people. The children of immigrants learn the ways of the new country better and quicker than do the old people. The children do not have such deeply entrenched habits that interfere with the acquisition of new ones. Habit comes from repetition of an act;

[1] F. H. GARRISON, AN INTRODUCTION TO THE HISTORY OF MEDICINE, third edition (Philadelphia and London: W. B. Saunders, 1922), p. 503.

repetition makes the doing of an act easier. This ease results from the fact that energy flows more readily along nerve paths when the connections have already been made in a co-ordinated system, than when a new path must be established. Like a path in the woods, a nerve path is more easily followed when it has been frequently traversed.

It is sometimes said that habit explains why the English and the inhabitants of the United States do not use the metric system of measures, since it is a superior system to the one they use. Thus a habit is said to explain a habit. What is really meant is that it is difficult to substitute a new habit for the old habits of a large mass of people.

But there are various situations which break up habits. The Russian children who were taken from the homes of peasants and proletariat and placed in model nurseries and progressive schools grew up without the superstitions found in the ordinary home. Changes could, of course, be made much more quickly by some such drastic method of dealing with the young than by the slow method of working with adults.

Physical obstacles to changes in habit. Sometimes there are actual physical obstacles to the changing of habits. For instance, the exit from New York subway cars is from all doors, whereas if passengers left by the center door and entered at the ends, there would be less loss of time and less annoyance. The attempt has been made to break the old habit and start the new, but with no success. One of the reasons seems to be that the crowds are too large to handle.

Also certain habits of city life are difficult to change because of the physical durability of buildings. Factories would move out sooner into cheaper lands, now that transportation is available, did not the plants, durable and costly, hold them to the spot. Communities tend to persist in their physical pattern of organization due to the long life of brick and steel. If houses in the crowded centers of cities could be scattered toward the suburbs, it is quite probable that delinquency, essentially a city habit, would be lessened.

Habits of mind. In discussing the resistance of habits to change, mention should be made of habits of mind. The mind becomes organized into ways of looking at things and stores its memories in certain pigeon holes, so to speak. As a result of past experience, one builds up a philosophy of life which does not change readily to meet new and changed conditions. Social philosophies are the habits of a mental lifetime. Notions of liberty, collectivism, and theories of the state dating from earlier times tend to persist, because of the resistance of habit to change.

The views of the old people often represent opinions formed many years ago, opinions which have not changed with the changing times. Fifty-one per cent of women over 45 years of age think the moral standards of youth are lower than they used to be, while only 32 per cent of those under 30 years of age think so.[1] Similarly, 31 per cent of the older people are opposed to birth control, as compared with 12 per cent of the young.[2] As regards the question, "do you believe in divorce?" 40 per cent of the old voted "no" and only 25 per cent of the young.[3] It may be that the old are nearer right than the young, but with that question we are not concerned. The point is that the opinions of the old are nearer to the general opinions of a generation or so ago, and not as much like those of the present as are the attitudes of the young. For 69 per cent of all voters in 1938 believed in permitting divorce, 79 per cent were in favor of birth control, and 58 per cent did not believe that the moral standards today were lower. The greater conservatism of older people is also shown by the fact that they stay with a particular political party, such as the Democratic or Republican, more consistently than do the young. Younger voters change party lines more readily.[4]

It has been shown experimentally that with the coming of old age there is a decline in efficiency in learning practically all kinds of material. In a series of different tests, the older subjects had greatest difficulty in learning material such as false multiplication tables ($2 \times 4 = 9$, etc.), which demand tearing down old habits.[5] The interests and attitudes of individuals tend to become increasingly fixed as they grow older. Strong[6] found that likes, dislikes, interests, and ambitions change less between the ages 25 to 65 than between the ages 15 to 20. It has also been shown that adults who keep active intellectually suffer less rigidity than those who do not. Where older people continue their schooling, for example, they have less difficulty in learning new materials.[7] The conservatism of old people in general would thus seem to be due to their acquisition of rigid habits of mind.

[1] LADIES HOME JOURNAL, 55:14, May, 1938. [2] *Ibid.*, March, 1938, p. 14.

[3] *Ibid.*, February, 1938, p. 14.

[4] From unpublished data in the possession of the authors.

[5] F. L. RUCH, "DIFFERENTIAL DECLINE OF LEARNING ABILITY IN THE AGED AS A POSSIBLE EXPLANATION OF THEIR CONSERVATISM," JOURNAL OF SOCIAL PSYCHOLOGY, 5:329–37, August, 1934.

[6] E. K. STRONG, CHANGES OF INTERESTS WITH AGE (Stanford University Press, 1931).

[7] H. SORENSON, "ADULT AGES AS A FACTOR IN LEARNING," JOURNAL OF EDUCATIONAL PSYCHOLOGY, 21:635–53, 1930; also, "MENTAL ABILITY OVER A WIDE RANGE OF ADULT AGES," JOURNAL OF APPLIED PSYCHOLOGY, 17:729–41, December, 1933.

ATTITUDES HOSTILE TO CHANGE

Individuals may favor change or support the *status quo*, but there is probably a theoretical reason for believing that the desire for adventure and change is less strong than the desire for security, that is, the desire to remain as we are. The wish for security rests on fear and hunger, drives more powerful than curiosity, which apparently underlies the desire for adventure. The conservative tendencies in human nature are presumably stronger than the innovating tendencies. However this may be, it is easy to see that there are certain emotional attitudes that are barriers to change.

Fear of the new. For instance, there is the fear of the new. Many persons feel they do not know how a new experiment will work out, so fear to embark on the venture. It is said, for instance, that the people of the western states of the United States are more interested in social experiments such as the initiative and referendum or health insurance, as evidenced by the number of popular measures submitted to the electorate, than are people in other parts of the United States.[1] There seems to be less fear of possible failure in the western states where there are presumably more economic opportunities. Unfortunately there is no way of generalizing as to how many persons out of a given population fear the average new proposal and how many welcome it. About 55 per cent of the proposals submitted by the initiative and referendum technique to the voters of the Pacific States have been voted down,[2] but the reason for doing so may not have been fear.

Popular attitudes toward change may not be the same for all aspects of culture. Where new methods in competitive industry bring greater profits, they are likely to be welcomed. When the automobile succeeds and the relatively changeless railroad fails to prosper, this fact is worked into the social consciousness and is important in forming attitudes toward change. Again, at the present time in the United States there seems to be more willingness to experiment in the schools than in the church. This favorable attitude toward change is rather conspicuously fostered in regard to fashion. And, of course, innovation is the very spirit of science.

It may be argued that the attitude of welcoming the new is a result of change. This is undoubtedly so. But the attitude may be a cause of

[1] H. F. GOSNELL and M. J. SCHMIDT, "POPULAR LAW-MAKING IN THE UNITED STATES," PROBLEMS RELATING TO LEGISLATIVE ORGANIZATION AND POWERS (New York: Constitutional Convention Committee, 1938), p. 326.

[2] GOSNELL and SCHMIDT, *op. cit.*, p. 320.

change as truly as a result. For instance, the attitude of religious Islam is definitely hostile toward the new in science. This attitude is shown in the following letter written by a Moslem in response to a request for information about his community: [1]

> *My Illustrious Friend and Joy of my Liver:*
>
> The thing which you ask of me is both difficult and useless. Although I have passed all my days in this place, I have neither counted the houses nor inquired into the number of inhabitants; and as to what one person loads on his mules and the other stows away in the bottom of his ship, that is no business of mine. But above all, as to the previous history of this city, God only knows the amount of dirt and confusion that the infidels may have eaten before the coming of the sword of Islam. It were unprofitable for us to inquire into it. . . .
>
> Listen, O, my son! There is no wisdom equal to the belief in God. He created the world and shall we liken ourselves unto him in seeking to penetrate into the mysteries of his creation? Shall we say, Behold this star shineth around that star, and this other star with a tail goeth and cometh in so many years? Let it go, He from whose hand it came will guide and direct it. Thou art learned in the things I care not for, and as for what thou hast seen, I spit upon it. Will much knowledge create thee a double belly, or wilt thou seek paradise with thine eyes?
>
> *The meek in spirit,*
>
> *Imaum Ali Zado*

It is clear that such an attitude toward science will be an obstacle to its development. Attitudes may be developed for or against certain things and thus retard or advance change in regard to them. It is said that the attitude in the Old Testament toward idolatry and the making of images was a hindrance to the development of sculpture and painting among the Jews.

Reverence for the past. Another attitude unfavorable to change is reverence for certain conditions of the past. In general we tend to remember more of the things that are pleasant to contemplate than of the things that are unpleasant to recall.[2] We forget bills more readily than we forget checks. Names associated with unpleasant experiences are forgotton more readily than names associated with pleasant conditions.[3]

[1] WILLIAM I. THOMAS, SOURCE BOOK FOR SOCIAL ORIGINS (Boston: Richard G. Badger, 1902), p. 170.

[2] H. C. CARTER, H. E. JONES, and N. W. SHOCK, "AN EXPERIMENTAL STUDY OF AFFECTIVE FACTORS IN LEARNING," JOURNAL OF EDUCATIONAL PSYCHOLOGY (25:203–15, March, 1934), show that pleasant words are more easily learned and retained than are unpleasant words.

[3] SIGMUND FREUD, THE PSYCHOPATHOLOGY OF EVERDAY LIFE (New York: The Macmillan Company, 1914).

Selection favors the past. This factor is more or less constant over the years except that there is more opportunity for it to operate when conditions are changing. But this tendency may vary from one institution to another. The home and fireside are usually very pleasant to remember, and this remembrance operates to conserve the family. The alumni of a college are by common consent conservative and want their alma mater to remain more or less as it was in the time when they were students. In regard to musical innovations, there is a good deal of resistance, because familiar music when heard establishes pleasant associations in the mind. The repetition of the music, if not too frequent, brings again to mind pleasant associations which are not yet established with new types of music. Innovation in the arts must win its way against the association of sentiment with old forms.

Sentiment is definitely built up around institutions to which loyalty is felt. Such is the case with government.[1] The Constitution of the United States is revered, as are the views of national heroes. Hence there is a definite resistance to change in governmental patterns. In times of crisis such as wars, depressions, or revolutions, the forms are changed quite rapidly, but otherwise the resistance to change is impressive.

Vested interests. There is still another type of attitude that has proved very effective in resisting change. It is the attitude of self-interest on the part of those who derive differential advantage from the *status quo*. For instance, the construction of railroads was opposed by the owners of canals who derived an advantage from the existing situation and feared they would lose by the competition of the railroads. Favored groups who probably stand to lose by change have been called "vested interests" by Thorstein Veblen.[2] Their opposition to change rests in their selfishness. For instance, the free delivery of mail to farmers was for some time opposed successfully by the owners of saloons, who liked the idea of the farmer coming to town for his mail. He might stop for a drink at the corner saloon or the one on the outskirts of town, usually called "the last chance." Studies made of opposition to change reveal one of the most frequent and powerful obstacles to be that of the "vested interests." [3] This is also the common conclusion of reformers.

[1] B. STERN, SOCIAL FACTORS IN MEDICAL PROGRESS, chap. XI.

[2] THORSTEIN VEBLEN, VESTED INTERESTS AND THE STATE OF THE INDUSTRIAL ARTS.

[3] See BERNHARD J. STERN, SOCIAL FACTORS IN MEDICAL PROGRESS, and "RESISTANCES TO THE ADOPTION OF TECHNOLOGICAL INNOVATIONS," in TECHNOLOGICAL TRENDS AND NATIONAL POLICY.

It is to be noted that the vested interests are not all motivated by a desire for financial gain. The quest for power or prestige are also motives. Changes in the curricula of colleges are generally not favored by those teaching established subjects. Organized orthodox psychology is hardly cordial toward experiments in psychic phenomena. It is to be noted, too, that self-interest seeks change when it is favorable as truly as it opposes change when it is unfavorable. The lobbies maintained around legislative halls to favor or oppose legislation show this to be the case.[1]

Those who expect to gain in wealth, power, or reputation by social change usually favor it. There are certain classes in modern society that have their chains, it is said.[2] Such classes are much more likely to favor some modifications of the *status quo*. These are the groups from which most radicals are recruited. This origin of radicals has been shown, for example, in a study [3] of the Non-Partisan League, and of its support among North Dakota and Minnesota farmers. The strongest backing for this progressive political organization has come from the newer and poorer communities. The point is further illustrated by the international situation in Europe after the losers in the World War had had time to recover some strength. The Allies who won the World War generally favored peace, which meant no change in international settlements, whereas those countries like Hungary and Germany that suffered losses of territory, and countries like Italy, that gained little, were interested more in changes, and appeared in their preparation to be more warlike.

The situation of conflicting interests is natural enough and the attitudes of the different sides toward change are understandable. But it should be noted further that the number of vested interests in society is often quite large. In addition, they possess considerable power because of their position, so that they are a formidable opposition to change. In a democracy with the device of voting, there is provision for the orderly registration of opinion on the party in power or on particular proposals. But often no such provision for voting exists; or even when it does, the vested interests have a differential advantage in the use of propaganda, because of their preferred position. In opposing a measure, the vested interests seldom give the true reason for their action, which is that they would lose money, power, or prestige. Their motives are disguised. For

[1] KENNETH G. CRAWFORD, THE PRESSURE BOYS (New York: Messner, 1939).

[2] The Communist Manifesto reads: "Workers of the world, unite! You have nothing to lose but your chains; you have the whole world to gain."

[3] G. A. LUNDBERG, "DEMOGRAPHIC AND ECONOMIC BASIS OF POLITICAL RADICALISM AND CONSERVATISM," AMERICAN JOURNAL OF SOCIOLOGY, 32:719–32, 1927.

instance, the following selection from a flowery southern orator seems to rationalize the use of child labor in the cotton mills:

> Here will be found a never failing asylum for the friendless orphans and the bereft widows, the distribution of labor and the improvements in machinery happily combining to call into profitable employment the tender services of those who have just sprung from the cradle as well as those who are tottering to the grave, thus training up the little innocents to early and wholesome habits of honest industry and smoothing the wrinkled frown of decrepitude with the smiles of competency and protection.[1]

In modern times when social movements are organized to effect a change, as for instance the abolition of child labor, a great deal of organized effort is needed. Those engaged in the process of reform are impressed with the will power, effort, and determination required. This necessity is due to the fact that the vested interests become organized, too, and offer effective resistance. The opposition of vested interests becomes a matter of great concern and appears in the drama of social conflict to be the arch enemy of the changes proposed.

[1] Quoted by ELLEN WETHERELL, "AMONG THE COTTON MILLS," INTERNATIONAL SOCIALIST REVIEW, 14:416, 1913–14.

SUMMARY

The cultural scene may be dramatized as a tug of war between the forces favorable to change and those opposed to it. The rate of change at any given time depends on the strength of the opposing contenders. Hostile to cultural change are two sets of factors, those that affect the rate of invention and those that offer resistance to inventions that are made. It has been shown that the scarcity of inventions at any given time is due to the lack of the necessary knowledge or to a weak social demand. There is plenty of inventive ability in society, so that inventions would be forthcoming if the other two factors were favorable.

Lack of sufficient knowledge, morever, makes it difficult to produce inventions that will from the first work efficiently. For this reason there is intolerance of new inventions, which hinders their development. Often, too, inventions may be available, but are rejected. This may be due to the fact that the inventions, if introduced, would seriously disturb other parts of the culture. The greater the degree of integration of the different parts of culture, the more resistance there will be to innovation. A new invention may be rejected too, if an element already exists which serves somewhat the same purposes, even though not so well. Old elements thus tend to pre-empt the field, a phenomenon called cultural inertia. Survivals, like the tails or sleeve buttons on coats, constitute a special case of cultural inertia.

From a social psychological standpoint the resistance to change is seen to be a matter of habit formation. Individuals become accustomed to doing things in a certain way, then find it difficult to change. The longer a practice is carried on, the more difficult it becomes to change it; hence old people with fixed habits are particularly resistant to change. Certain attitudes are hostile to change also. Such are fear of the new, devotion to things as they are, and reverence for conditions of the past. Particularly hostile to change is the attitude of self-interest on the part of organized, established, privileged groups, the so-called vested interests. which benefit most from keeping things as they are.

QUESTIONS FOR DISCUSSION

1. Upon what three factors do inventions rest? How do you rate the factors as to importance?
2. If necessity is the mother of invention, why did not the Indians, who had a great need for scientific medicine, make many discoveries in this field?
3. Why has no discovery yet been made for the cure of cancer?
4. What are some great social needs of the present which cannot be met because there is insufficient cultural preparation (scientific knowledge) for dealing with them?
5. What are the steps in the development of an invention? Illustrate.
6. What are the obstacles to the adoption of simplified spelling?
7. Why is there resistance to the use of a calendar of 13 months, each four weeks long?
8. What obstacles are there to the adoption of a social invention like the juvenile court?
9. Do some societies encourage inventions more than others? Why is this so?
10. What traits of our culture has the Eskimo adopted? Why has he not taken over more of our culture?
11. In connection with which of the social institutions is resistance to change most pronounced? Why?
12. Are old people in general more resistant to social change than are young people? Elaborate.
13. What are the vested interests in your community? On your campus? What changes do they oppose? What advantages are they seeking to conserve?

TOPICS FOR REPORTS

1. The social significance of the nature of research projects for which funds are allocated by the great foundations.
2. Two social inventions or proposals (the one practicable and the other impracticable) for meeting a present social need.

3. Present obstacles to commercial television.
4. Modern Turkey and its social revolution.
5. The opposition of vested interests in the United States to the socialization of medicine.
6. The social psychological traits of political radicals and conservatives.
7. Opposition to the Child Labor Amendment.
8. The opposition of British labor to the inventions which brought about the Industrial Revolution.

SELECTED READINGS

HART, HORNELL, THE TECHNIQUE OF SOCIAL PROGRESS. New York: Henry Holt and Company, 1931.

This book has some very ingenious analyses of records of social change, which by implication throw considerable light on resistances to change.

KAEMPFFERT, WALDEMAR B., MODERN WONDER WORKERS: A POPULAR HISTORY OF AMERICAN INVENTIONS. New York: Blue Ribbon Books, 1924.

This book gives a very interesting account of the developments and adoption of the bigger inventions, and furnishes various illustrations of the difficulties encountered in getting an invention across. The book stresses the rôle of the great man in inventions, but it also gives a lot of material with which the student of technology should be familiar.

OGBURN, WILLIAM F., SOCIAL CHANGE. New York: The Viking Press, 1922.

This book contains a chapter on resistances to inventions and a special one on the nature of cultural lag.

SIMS, NEWELL L., THE PROBLEM OF SOCIAL CHANGE. New York: The Thomas Y. Crowell Company, 1939.

Chapter II makes some penetrating revisions of the Wolfe analysis, especially emphasizing tradition and bringing in the revolutionary attitude. (See reference to A. B. WOLFE *in this list).*

STERN, BERNHARD J., "RESISTANCES TO THE ADOPTION OF TECHNOLOGICAL INNOVATIONS," TECHNOLOGICAL TRENDS AND NATIONAL POLICY, National Resources Committee. Washington: Government Printing Office, 1937.

A running account of the resistances which have developed to the adoption of successful mechanical inventions, such as the railroads, the coach, and so on. A readable and almost unbelievable account of resistances to inventions that have proved of great benefit to society.

STERN, BERNHARD J., SOCIAL FACTORS IN MEDICAL PROGRESS. New York: Columbia University Press, 1927.

An analysis of all types of resistances to a few significant medical discoveries that have proved to be of great value to the human race. One of the earliest studies in this field and still a valuable source.

TYLOR, E. B., PRIMITIVE CULTURE, Seventh Edition. New York: Brentano's, 1924.

Chapter II, "SURVIVALS," *is the base from which most writers discussing survivals take off. A wealth of interesting material which is used as historical background in discussing earlier inventions. The functional aspect of survivals is, however, not analyzed fully.*

VEBLEN, THORSTEIN, VESTED INTERESTS AND THE STATE OF THE INDUSTRIAL ARTS. New York: B. W. Huebsch, 1919.

This book, which originated the term "vested interests," points out their tremendous power regarding the phenomenon of economic change.

WALLIS, WILSON D., and MALCOLM M. WILLEY, READINGS IN SOCIOLOGY.

In chapter II, Selections 21–23 give some admirable illustrations of social conservatism and inertia and various resistances to social change. These accounts are lively and illuminating.

WOLFE, A. B., CONSERVATISM, RADICALISM, AND THE SCIENTIFIC METHOD. New York: The Macmillan Company, 1923.

One of the few studies on the nature of conservatism and radicalism with reference to social change. The value of the scientific approach is especially emphasized.

"WOMAN AND THE SUFFRAGE," ANNALS OF THE AMERICAN ACADEMY OF POLITICAL AND SOCIAL SCIENCE, vol. LVI, Part III, pp. 93–173, November, 1914.

This reference gives an account of the types of resistance that a modern movement, like woman's suffrage, meets.

XXVI. THE SOCIAL EFFECTS OF INVENTIONS

IN THE FIRST CHAPTER of Part VII the general processes of social change were set forth and in the second chapter the nature of the resistances to change was analyzed. In the present chapter the purpose is primarily to consider one special cause of social change in modern civilization: mechanical inventions and discoveries in applied science. Invention and discovery are significant characteristics of our age, in testimony of which fact it has been called the "mechanical era," the "age of power," the "scientific age." This very conspicuous feature of our times, technology, is changing very rapidly. The horse is being replaced by the automobile, and now the airplane is being adopted. Radio and cinema have been added quickly. Such technological developments are not without social influences. That is, inventions either instigate social changes or encourage them. For instance, the radio has influenced the style of oratory and affected the method of political campaigning. This chapter, then, deals principally with technological changes and discoveries in applied science as causes of social change.

THE MANNER OF TECHNOLOGICAL INFLUENCE ON SOCIETY

CONCOMITANT VARIATION AND CAUSAL RELATIONS

Technology affects society in that a variation in technology causes a variation in some institution or custom. The invention of the self-starter for the automobile is said to be responsible for women driving cars. It was rather difficult for a woman to get out of a car and crank it. The change in this mechanism led to a change in the habits of women in regard to mobility, home life, care of children, vacationing, and use of hotels.

It is recognized that there may be some objection to the use of the word "cause" in describing such an influence, but the term cause is in practice used in more than one way. One use is a very strict one. If

event *A* had not occurred then *B* would not have happened. Only under these conditions, according to this conception of cause, could *A* cause *B*. The application of this definition to the illustration would mean that, if automobiles had not been equipped with self-starters, no women would have driven cars. Such a relationship is not true, for some women drove cars before the self-starting mechanism was adopted. Perhaps a large number of women would have driven cars if there had never been a self-starter. The impetus to mobility for women may have made them willing to put up with the troublesomeness of cranking a car by turning a handle outside the car. Furthermore, the earlier method of cranking a car might have become easier; women in general might have learned to drive if the present self-starter had never been invented. It is seen that, under this idea of causation, the self-starter would not be considered a cause of women driving automobiles.

But there is another use of the word cause. It is that of causal concomitant variation.[1] Sitting in a draught is said to cause a cold, though one may "catch a cold" without ever being in a draught. If there were no draughts there would still be colds. What is meant is that if, say, a thousand persons are subjected to an increased motion of air on exposed parts of the body, there will be an increased number of colds. If a variation in *A* is associated with a variation in *B*, and this association is not the result of any other factor affecting both *A* and *B*, then *A* may be said to be a cause of *B*. Since the use of the self-starter led to more women drivers, it is said that the self-starter was a cause of women in general driving cars. The conception of cause as concurrent variation does not involve significance in values. Some of the variations may be very small. The driving of automobiles by women is said to have led hotels to introduce a special luncheon, featuring salads and other items that appeal to women customers. It seems quite probable, however, that the effect of the self-starter on menus was small.

THE MULTIPLE EFFECTS OF A MAJOR MATERIAL INVENTION

An important invention need not be limited to only a single social effect. Sometimes it exerts many influences which spread out in different directions like the spokes of a wheel. Thus the radio influences entertainment, education, politics, transportation, and many other types of

[1] KARL PEARSON, THE GRAMMAR OF SCIENCE, third edition, revised and enlarged (London: A. and C. Black, 1911).

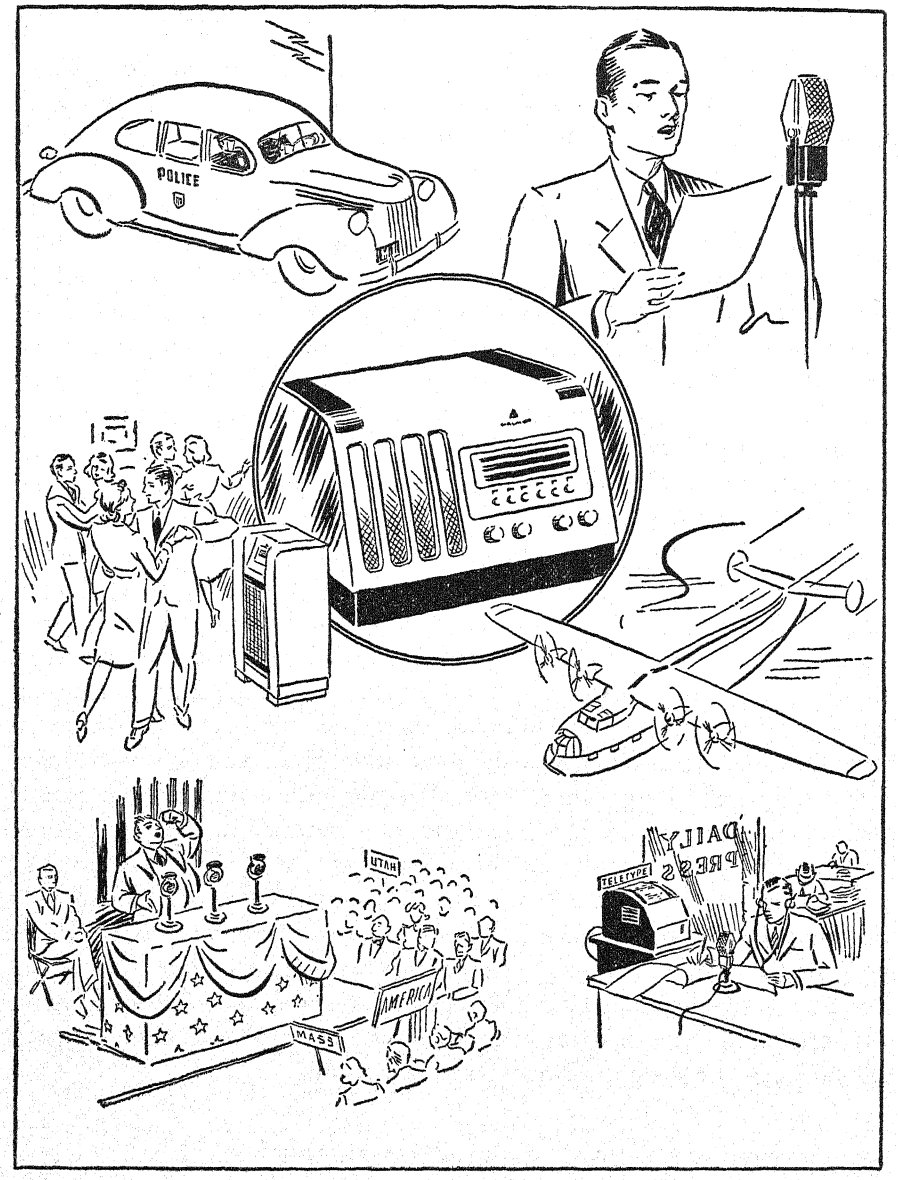


FIGURE 142. THE NUMEROUS EFFECTS OF A GREAT INVENTION

A big invention is the center of many different effects that radiate in different directions like the spokes of a wheel. For instance, the radio has influenced the detection of crime, affected the dancing and recreation of young people, produced new occupations, changed the manner of political campaigning, increased the safety of airplanes and reduced the time it takes us to get the news.

activity. The following list [1] of social effects of the radio gives a picture of the many different ways in which a single invention may influence society:

I. On Uniformity and Diffusion

1. Homogeneity of peoples increased because of like stimuli.
2. Regional differences in culture become less pronounced.
3. The penetration of the musical and artistic city culture into villages and country.
4. Ethical standards of the city made more familiar to the country.
5. Distinctions between social classes and economic groups lessened.
6. Isolated regions are brought in contact with world events.
7. Illiterates find a new world opened to them.
8. Restrictions of variation through censorship resulting in less experiment and more uniformity.
9. Favoring the widely spread languages.
10. Standardization of diction and discouragement of dialects.
11. Aids in correct pronunciation, especially foreign words.
12. Cultural diffusion among nations, as of United States into Canada and vice versa.

II. On Recreation and Entertainment

13. Another agency for recreation and entertainment.
14. The enjoyment of music popularized greatly.
15. Much more frequent opportunity for good music in rural areas.
16. The manufacture of better phonograph music records encouraged.
17. The contralto favored over sopranos through better transmission.
18. Radio amplification lessens need for loud concert voices.
19. Establishment of the melodramatic playlet with few characters and contrasted voices.
20. Revival of old songs, at least for a time.

[1] President's Research Committee on Recent Social Trends, RECENT SOCIAL TRENDS (New York: McGraw-Hill Book Company, 1933), pp. 153–56. It should also be noted that "In some cases the effects may not be easily apparent, because obscured by other more powerful forces operating in the opposite direction. As an illustration, the radio, through the broadcasting of educational matters and current events to adults at home, is said to lessen the differences that often appear between parents and their children because of the fact that their respective educations have differed greatly. This influence, a very small one, may possibly be quite obscured by opposite forces such as growing compulsory attendance for more school hours and more particularly by the increasing number of children who go to high school. . . . An invention may have effects in opposite directions. For example, the radio has caused a revival of old songs, but it has greatly popularized new songs also. It may improve diction and pronunciation yet at the same time encourage certain types of localisms in pronunciation" (pp. 152–53).

21. Greater appreciation of the international nature of music.
22. Entertainment of invalids, blind, partly deaf, frontiersmen, etc.
23. With growth of the reformative idea, more prison installations.
24. Interest in sports increased, it is generally admitted.
25. Slight stimulation to dancing at small gatherings.
26. Entertainment on trains, ships, and automobile.

III. On Transportation

27. Radio beams, enabling aviators to remain on course.
28. Directional receivers guide to port with speed and safety.
29. Aid furnished to ships in distress at sea.
30. Greater safety to airplanes in landing. Radio system also devised now for blind landing.
31. Chronometers are checked by time signals.
32. Broadcast of special weather reports aids the aviator.
33. Brokerage offices on ships made possible.
34. Receipt of communications en route by air passengers.
35. Communication between airplanes and ships.
36. Ships directed for better handling of cargoes.

IV. On Education

37. Colleges broadcast classroom lectures.
38. Broadcasting has aided adult education.
39. Used effectively in giving language instruction.
40. Purchasing of textbooks increased slightly, it is reported.
41. Grammar school instruction aided by broadcasting.
42. Health movement encouraged through broadcast of health talks.
43. Current events discussions broadcast.
44. International relations another important topic discussed, with some social effects, no doubt.
45. Broadcasting has been used to further some reform movements.
46. The government broadcasts frequently on work of departments.
47. Many talks to mothers on domestic science, child care, etc.
48. Discussion of books aids selection and stimulates readers.
49. The relationship of university and community made closer.
50. Provision of discussion topics for women's clubs.
51. Lessens gap schooling may make between parents and children.
52. New pedagogical methods, i.e., as to lectures and personality.
53. Greater knowledge of electricity spread.
54. The creation of a class of radio amateurs.

V. On the Dissemination of Information

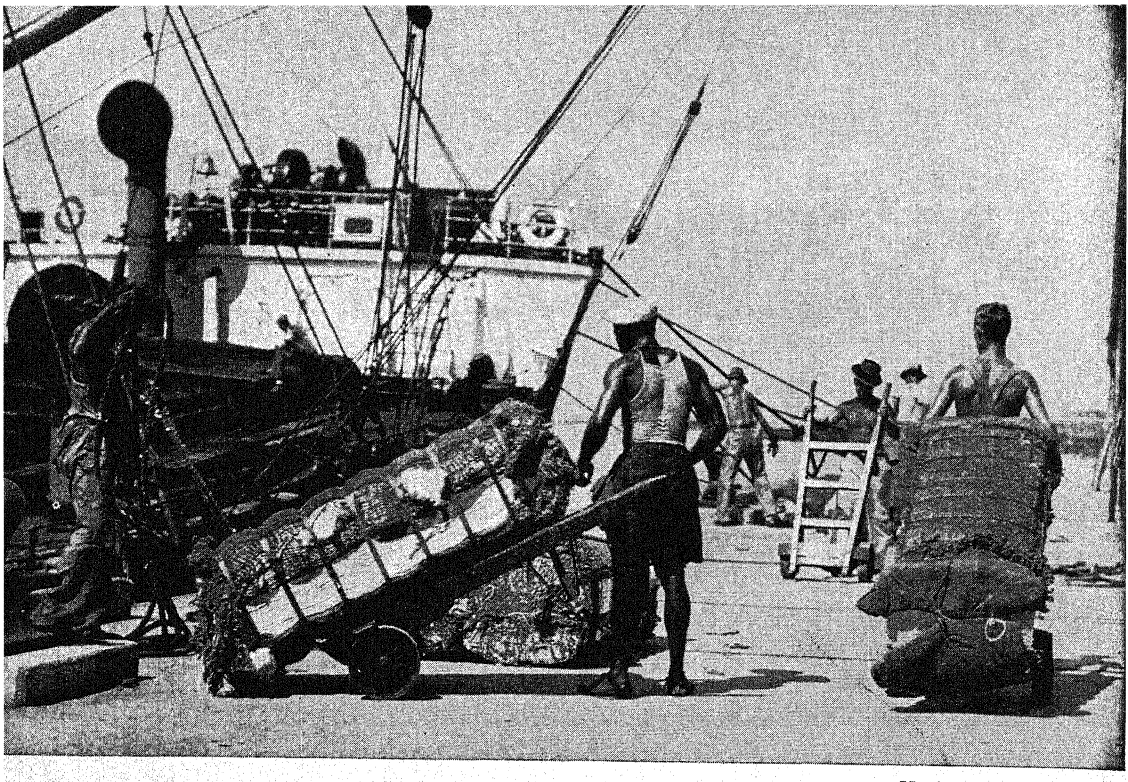
55. Wider education of farmers on agricultural methods.
56. Prevention of loss in crops by broadcasting weather reports.



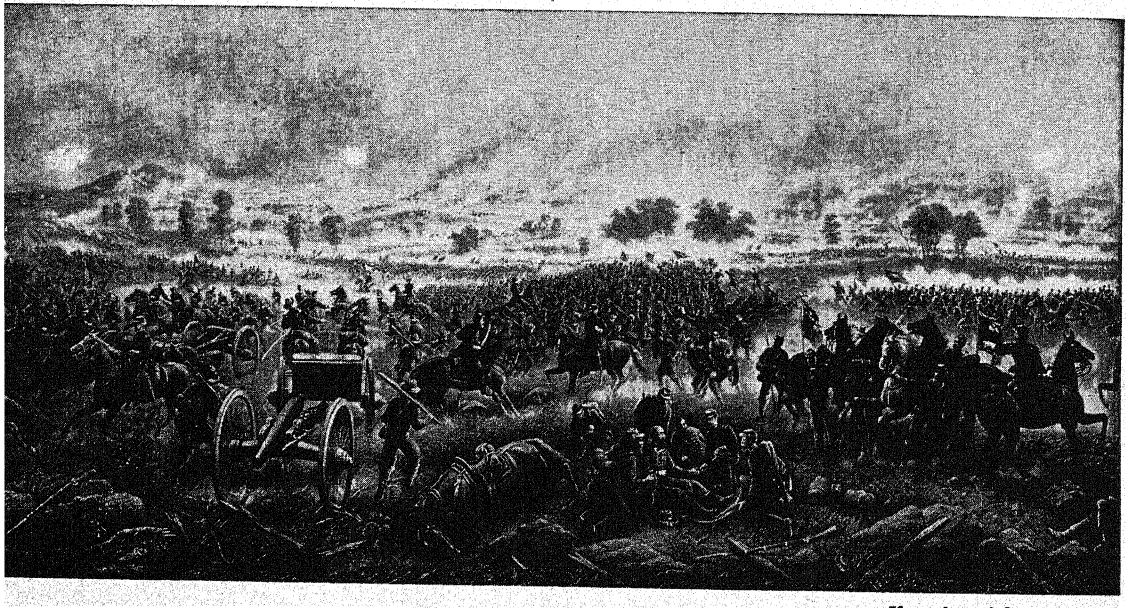
Gendreau

PLATE 15. DERIVATIVE EFFECTS OF INVENTION

An invention has a succession of effects, attached more or less as the links of a chain follow one another. The cotton gin seems to have increased the number of slaves, making it possible to increase the planting of cotton, which had the effect of stimulating trade with England, the best policy for which was free trade. The economic system of the South, where Cotton was King, then led to conflict with the economic system of the North, based upon a protective tariff favoring infant industries, and ended in the War Between the States. These links are shown in the pictures in Plate 15. (See reverse side also.)



H. Armstrong Roberts



Kennedy and Company

PLATE 15 (*continued*)

57. Education of farmers on the treatment of parasites.
58. Market reports of produce permitting better sales.
59. Important telephone messages between continents.
60. Small newspapers, an experiment yet, by facsimile transmission.
61. News to newspapers by radio broadcasting.
62. News dissemination in lieu of newspapers, as in British strike.
63. Transmission of photographic likenesses, letters, etc., especially overseas where wire is not yet applicable.
64. Quicker detection of crime and criminals, through police automobile patrols equipped with radio.

VI. On Religion

65. Discouragement, it is said, of preachers of lesser abilities.
66. The urban type of sermon disseminated to rural regions.
67. Services possible where minister cannot be supported.
68. Invalids and others unable to attend church enabled to hear religious service.
69. Churches that broadcast are said to have increased attendance.
70. Letter writing to radio religious speakers gives new opportunities for confession and confidence.

VII. On Industry and Business

71. In industry, radio sales led to decline in phonograph business.
72. Better phonograph recording and reproducing now used.
73. Lowering of cable rates followed radio telegraph movement.
74. Point to point communication in areas without wires.
75. The business of the lyceum bureau, etc., suffered greatly.
76. Some artists who broadcast demanded for personal appearance in concerts.
77. The market for the piano declined. Radio may be a factor.
78. Equipment cost of hotel and restaurant increased.
79. A new form of advertising has been created.
80. New problems of advertising ethics, as to comments on competing products.
81. An important factor in creating a market for new commodities.
82. Newspaper advertising affected.
83. Led to creation of new magazines.
84. An increase in the consumption of electricity.
85. Provision of employment for 200,000 persons.
86. Some decreased employment in phonograph and other industries.
87. Aid to power and traction companies in discovering leaks, through the assistance of radio listeners.
88. Business of contributing industries increased.

VIII. On Occupations

89. Music sales and possibly song writing have declined. Studies indicate that broadcasting is a factor.
90. A new provision for dancing instruction.
91. A new employment for singers, vaudeville artists, etc.
92. New occupations: announcer, engineer, advertising salesmen.
93. Dance orchestras perhaps not increased but given prominence.

IX. On Government and Politics

94. In government, a new regulatory function necessitated.
95. Censorship problem raised because of charges of swearing, etc.
96. Legal questions raised beginning with the right to the air.
97. New specialization in law; four air law journals existing.
98. New problems of copyright have arisen.
99. New associations created, some active in lobbying.
100. Executive pressure on legislatures, through radio appeals.
101. A democratizing agency, since political programs and speeches are designed to reach wide varieties of persons at one time.
102. Public sentiment aroused in cases of emergencies like drought.
103. International affairs affected because of multiplication of national contracts.
104. Rumors and propaganda on nationalism have been spread.
105. Limits in broadcasting bands foster international arrangements.
106. Communication facilitated among belligerents in warfare.
107. Procedures of the nominating conventions altered somewhat.
108. Constituencies are kept in touch with nomination conventions.
109. Political campaigners reach larger audiences.
110. The importance of the political mass meeting diminished.
111. Presidential "barnstorming" and front porch campaign changed.
112. Nature of campaign costs affected.
113. Campaign speeches tend to be more logical and cogent.
114. Appeal to prejudice of local groups lessened.
115. An aid in raising campaign funds.
116. Campaign speaking by a number of party leaders lessened.
117. Campaign promises over radio said to be more binding.
118. High government officers who broadcast are said to appear to public less distant and more familiar.

X. On Other Inventions

119. Development stimulated in other fields, as in military aviation.
120. The vacuum tube, a radio invention, is used in many fields, as for

lowering elevators, automobile train controls, converting electric currents, applying the photo-electric cell, as hereinafter noted. A new science is being developed by the vacuum tube.

121. Television was stimulated by the radio.
122. Developments in use of phonograph stimulated by the radio.
123. The teletype is reported to have been adapted to radio.
124. Amplifiers for radio and talking pictures improved.
125. Geophysical prospecting aided by the radio.
126. Sterilization of milk by short waves, milk keeping fresh for a week.
127. Extermination of insects by short waves, on small scale, reported.
128. Body temperature raised to destroy local or general infections.
129. The condenser with radio tubes used variously in industry, for controlling thickness of sheet material, warning of dangerous gas, etc.
130. Watches and clocks set automatically by radio.

XI. MISCELLANEOUS

131. Morning exercises encouraged a bit.
132. The noise problem of loud speakers has caused some regulation.
133. A new type of public appearance for amateurs.
134. Some women's clubs are said to find the radio a competitor.
135. Late hours have been ruled against in dormitories and homes.
136. Humor as a mode of expression perhaps hampered in broadcasting.
137. Growth of suburbs perhaps encouraged a little bit.
138. Letter writing to celebrities a widespread practice.
139. Irritation against possible excesses of advertising.
140. Development of fads of numerology and astrology encouraged.
141. Automobiles with sets have been prohibited for safety, in some places.
142. Additions to language, as "A baby broadcasting all night."
143. Aids in locating persons wanted.
144. Used in submarine detection.
145. Wider celebration of anniversaries aids nationalism.
146. Weather broadcasts used in planning family recreation.
147. Fuller enjoyment of gala events.
148. Home duties and isolation more pleasant.
149. Widens gap between famous and near famous.
150. Creative outlet for youth in building sets.

THE DERIVATIVE SOCIAL EFFECTS OF A SINGLE MATERIAL INVENTION

When an invention has an influence on some institution or custom, the influence does not stop there but continues on and on, each influence succeeding the preceding one like links in a chain. The influence of

the cotton gin was first to increase the planting of cotton, since it could be processed more quickly and with less labor. Seeding the cotton, a very tedious operation by hand, was the neck of the bottle, so to speak. The production of cotton could not be increased without more labor, so additional Negroes were brought from Africa and slavery grew very rapidly. The increase in slavery was a derivative influence of the cotton gin, a second link in the chain. The increase in slaves and in the power of the agricultural South, when cotton was king, led to the War Between the States, the third derivative influence of the cotton gin. The influence of the Civil War has extended even into the twentieth century.

This illustration needs examination. It should be noted that the cotton gin was not the sole determining cause of the increase of cotton production. England was clothing a large part of the world from her textile mills; hence developing commerce was a factor in the increase in cotton. But the gin made the supply of cotton more readily available. In other words, the variation in technology, through the addition of the gin, influenced the increase in cotton but was not necessarily the sole cause of its increase.

Also, more cotton could have been grown with white labor, if there had been no slaves. Furthermore, the expanding South called for more slaves even in regions where there was little cotton grown. So slavery might have increased even if there had been no cotton. But again the increased ease with which cotton could be seeded by the use of the gin influenced the supplying of more slaves to the cotton growers. This is true, even though the influence of the cotton gin is relatively less by the time this second derivative effect is reached.

The War Between the States was caused by many factors, of which the freeing of the slaves was but one. Yet the struggle over slavery and particularly the conflict of two economic systems was there. One of these systems was an economy where cotton was king by virtue of foreign trade. The other was a manufacturing economy which thrived on tariffs restricting foreign trade. The Cotton Kingdom rested on slave labor and the conflict of these two systems did lead to a war. The influence of the cotton gin becomes attenuated by the time the Civil War is reached, yet one would be bold to say the War would certainly have occurred if the cotton gin had never been invented, or that it would have occurred just as soon.

In attempting to get a correct picture of the influence of invention, it should thus be noted that a given invention is often only one of several

factors producing a particular result. The increased leisure of women may have been occasioned in part by the invention of the can opener, but it was also affected by the gas stove, the electric washing machine, and many other inventions. It is common knowledge among sociologists that a social phenomenon is almost never produced by one factor alone. In turn, the primary result of an invention is itself only one of many factors producing the secondary derivative influence, and so on. In this manner the force of any particular invention becomes spent in time, much as the force of a billiard ball in motion is dissipated as it strikes another ball, which in turn strikes another.

Inventions differ greatly in the strength of the influences they exert. Compare the example of the cotton gin with another illustration. The mechanical stoker for getting coal into a furnace increased the size of locomotives, which had been limited by the amount of coal a man could shovel. This larger engine made possible a longer train. Passenger trains sometimes became a quarter of a mile long. The long train necessitated more porters to carry the luggage, especially that of women. The force of the mechanical stoker still seems apparent in increasing the number of "red caps" in the stations, though the increase may also be due to more women traveling, to fashion, and to other factors. However, the demand for Negro porters in stations in the eastern and western cities is not great enough to have much effect upon the migration of Negroes out of the South; so the additional derivative influence of the mechanical stoker on the wage structure of the South is so slight as to be negligible. It is apparent that the stoker caused an increase in the number of porters in railroad stations and that it did not cause any appreciable change in wages in the cotton fields.

The derivative influences of inventions often become quite slight when the second and third derivatives are reached. Thus the influence of the tin can in producing woman suffrage was slight. Likewise the effect of the construction of apartment houses on the birth rate was not very significant. The influence of the inventions producing rayon and other silk-like fibers in breaking down class barriers through the cheapness and abundance of silk stockings is overshadowed by other factors. Indeed, the tracing out of the influence of a single invention to these distant derivatives makes the process seem absurd. Yet it is important to note that, while such may be the case with one invention, it may not be so where thousands of inventions are involved. In seeking to account for all the changes now taking place, it would be a mistake to neglect the

accumulative effects on society of these derivative influences of inventions. There are many thousands of inventions adopted every year and their cumulative influence is significant in producing the thousands of minor variations and changes taking place in our civilization.[1]

Some inventions have had major effects on our civilization here in the United States and their derivative influences are numerous. Inventions played a great part in the settling of that difficult region called the Great Plains. Prior to the settling of this territory the United States had a culture adapted to woodland country, and the Great Plains was an area without trees. The settlers at first passed up this region for the wooded country of the mountains and for the coast to the West; not until later did they build up an empire in this great broad treeless region.

Major derivative effects of a single invention — the six-shooter. Three inventions enabled the settlers to conquer this country. These were the six-shooter, the windmill, and barbed wire. Webb, to whom we are indebted for the appreciation of these technological factors in building up this area, shows that the six-shooter enabled the pioneers to defeat the Indians; barbed wire broke down the open range into individual farms, and the power of the windmill provided food for a larger population. Webb[2] vividly pictures the influence of the six-shooter in enabling the early pioneers to win this region from the Indians.

> Imagine now a battle between the Texans and the Comanches, and observe the relative advantages in weapons possessed by each. In most respects the Indian had the best of it. In the first place, the Texan carried at most three shots; the Comanche carried two score or more arrows. It took the Texan a minute to reload his weapon; the Indian could in that time ride three hundred yards and discharge twenty arrows. The Texan had to dismount in order to use his rifle effectively at all, and it was his most reliable weapon; the Indian remained mounted throughout the combat. Apparently the one advantage possessed by the white man was a weapon of longer range and more deadly accuracy than the Indian's bow, but the agility of the Indian and the rapidity of his movements did much to offset this advantage. . . .
>
> The battle of the Pedernales has good claims to being the first battle in which the six-shooter was used on mounted Indians. Hays and fourteen of his men had gone out from San Antonio to look for Indians, and on their return discovered that they were being followed by about seventy Comanches. A desperate battle ensued in which the Rangers "shot them

[1] RECENT SOCIAL TRENDS, chap. III, "The Influence of Invention and Discovery."

[2] WALTER P. WEBB, THE GREAT PLAINS (Boston: Ginn and Company, 1931), pp. 169–79.

down with their pistols." Some of the Rangers and more than thirty Indians were killed. . . .

Major Caperton says of the battle: "That was considered the best-contested fight that ever took place in Texas, and it showed that they (the Rangers) could whip the Indians on horseback, . . . the pistols gave them the advantage. That was the first time pistols were used in a fight with Indians."

In 1850 Major George T. Howard of the old Texas army and Captain I. S. Sutton of the Rangers wrote the following testimonial to the effectiveness of the revolvers: "They are the only weapon which enabled the experienced frontiersmen to defeat the *mounted* Indian in his own peculiar mode of warfare. . . . We state, and with entire assurance of the fact, that your six-shooter is the arm which has rendered the name of Texas Ranger a check and terror to the bands of our frontier Indians."

In the light of what has been said the rapid spread of the six-shooter over the whole Plains area is easy to understand. It is not difficult to see why people associate the six-shooter with Westerners of the Plains. Some still believe, such is the force of tradition, that the Westerners "wear 'em low on the right leg, and pull 'em smokin'." . . . Whatever sins the six-shooter may have to answer for, it stands as the first mechanical adaptation made by the American people when they emerged from the timber and met a set of new needs in the open country of the Great Plains. It enabled the white man to fight the Plains Indian on horseback.

THE SIGNIFICANT SOCIAL EFFECTS OF CONVERGING MATERIAL INVENTIONS

The effects of a number of inventions sometimes accumulate in the same place and thus bring together their respective influences. For instance, the following inventions very probably contribute to the decrease in the birth rate: the factory machines, the school, the apartment house, the automobile, the moving-picture theater, child labor laws, and compulsory education requirements. While the effect of any one of these inventions is scarcely discernible, the combined effect may be appreciable.

This combining of influences is a very common phenomenon. The growth of suburbs is the result, not of the automobile alone, though it is a significant influence, but also of the electric railway, the steam railroad, the telephone, the radio, the moving picture theater, and the chain store. These are all very different material objects and have different uses, yet all are centered on one result, namely, the creation of suburbs, whatever may be the other purposes they serve. It is as though the influence of a variety of inventions were poured into one groove. This grooving of the

influences of many inventions seems to be caused by demand. Human beings wish to live in suburbs, where there is more space but where they are still near to the advantages of the great cities, and this desire provides the dynamic directing force. In the previous chapter it was shown that social demand helps to bring inventions into being. It is now seen that social valuation determines also the social uses to which inventions are put. The purpose of the inventor of the automobile was not to create suburbs, nor was that the aim of the maker of the telephone. But the social forces have grooved the uses of these innovations to aid the development of residences on the borders of great cities.

The derivative effects of converging material inventions. In a previous paragraph it was shown how a single invention has a derivative effect. In a similar manner a group of converging inventions may jointly have a derivative effect, flowing from the one direct effect of the converging cluster. The derivative effects of such a converging cluster may be very significant. Thus the city is the more or less direct effect of many manufacturing, transportation, and communication inventions; but the city is the cause of countless numbers of social changes. It increases crime, diminishes the family, takes away functions from the church, increases the activities of government, and changes the nature of politics.[1] All these may be said to be derivative effects of the transportation and manufacturing inventions, though directly they are the effects of cities. Clusters of inventions, like the power inventions, converge on some social product, much as the sand in an hour glass converges on the narrow middle neck, from there to spread outward again.

The connections between the converging inventions and the diverging social effects are not always noted by observers. That crime is a phenomenon of city life is more easily recognized than that it flows from the power inventions that made the cities. Yet if a person is assigned the task of trying to trace out the effects of the factory and railroad, it would be a mistake to omit these influences of the city. Likewise, if suburban life causes a greater separation of the husband and father from the family circle and thereby accords more leadership to the wife and mother, this fact should be traced back to the newer transportation and communication inventions of the twentieth century which produced suburbs and separated residence from place of work.

[1] For a discussion of the problems brought about by city life the student is referred to OUR CITIES, part 1, section 3, National Resources Committee (Washington: Government Printing Office, 1937).

Influences of Social Inventions

SOCIAL INVENTIONS AND TECHNOLOGY

Social changes are often merely variations in existing practice. Thus the automobile may increase the tendency for summer hotel guests to remain for short stays. The change is to produce a variation in length of visit of summer hotel guests. No new thing is created, though this change in the nature of tourist trade may have radical effects upon the summer hotel business.

Social inventions resulting from mechanical change. On the other hand the variation in society caused by a mechanical change may be sufficiently great to justify the assignment of a new name to the social effect. Thus travelers always have stopped overnight or longer at camps; yet the automobile in increasing this tendency has produced a variation in the camp sufficiently different to be called the "tourist camp" and to justify the characterization of it as a social invention. Invention is commonly associated with material objects. That there are inventions which are not material but social is indicated by the following random sample of social inventions.[1]

Armistice day
Auto tourist camp
Australian ballot
Basketball
Bonus to wage-earners
Boycott
Chain store
Charity organization society
City Manager plan
Civil service system
Clearing house
Community chest
Company union
Correspondence school
Day nursery
Direct primary
Esperanto
Federal Reserve system
Four–H clubs
Group insurance
Holding company
Indeterminate sentence
Investment trust
Installment selling
Junior college
Juvenile court
Ku Klux Klan
League of Nations
Legal aid society
Lockout
Matrimonial bureau
Minimum wage law
Mother's pensions
National economic council
One-step dance
Psychological clinics
Proportional representation
Recall
Research Institute
Rochdale co-operative
Rotary club
Seminar
Social settlement
Summer camp
Tag day
Visiting teacher
Universal suffrage

The term "social invention" has come in practice to mean any invention that is not material and that is not a discovery in natural

[1] RECENT SOCIAL TRENDS, p. 162.

science. Strictly speaking a social invention should probably mean a group invention. Thus a day nursery is a new kind of group. But an invention like the novel in literature is sometimes called a social invention, probably because it is not a material invention, though it has little more to do with the group than does a hammer. A more inclusive term would be "non-material invention," a term not as facile, though, as social invention. Non-material invention might also be supposed to include scientific discoveries in applied science, as for instance in medicine. In actuality the relation of social change and discoveries in applied science is so much like the relation of social change and mechanical invention that inventions and discoveries are usually treated together, even though scientific discovery may be in non-material culture. Illustrations of inventions in non-material culture, which are called social inventions, are esperanto, a patent, a visa, and an intelligence test.

In the case of the tourist camp, cited previously, we have an illustration of a significant social invention resulting from a single mechanical invention, the automobile. But the automobile in this case means the car plus all the closely co-operating inventions such as the gasoline station, the hard surfaced road, and latterly the trailer, which accentuated the social aspects of the tourist camp. When a significant invention like the automobile is mentioned as having social effects, the associated inventions are also included. This clustering may be called more accurately the automobile complex. There is similarly a radio complex, a cinema complex, and so forth. But even in this expanded sense, it is difficult to cite many instances of a significant social invention resulting from a single material invention.

In general, the more important social inventions which issue from technology involve a number of material complexes. Old-age insurance is an effect of several complexes. One set includes the inventions that resulted in the birth of fewer babies, which means fewer children to care for parents when they become old. Another set embraces the transportation inventions that increase mobility and hence scatter the children away from the homestead and make it easier for them not to support their elderly relatives. Still another group includes the printing inventions and sound broadcasting which rain advertising appeals on those who might otherwise save more for old age. It may be said therefore that a social invention, such as old-age insurance, is dependent upon several groups of material inventions.

Importance of non-technological factors. It is to be noted, however,

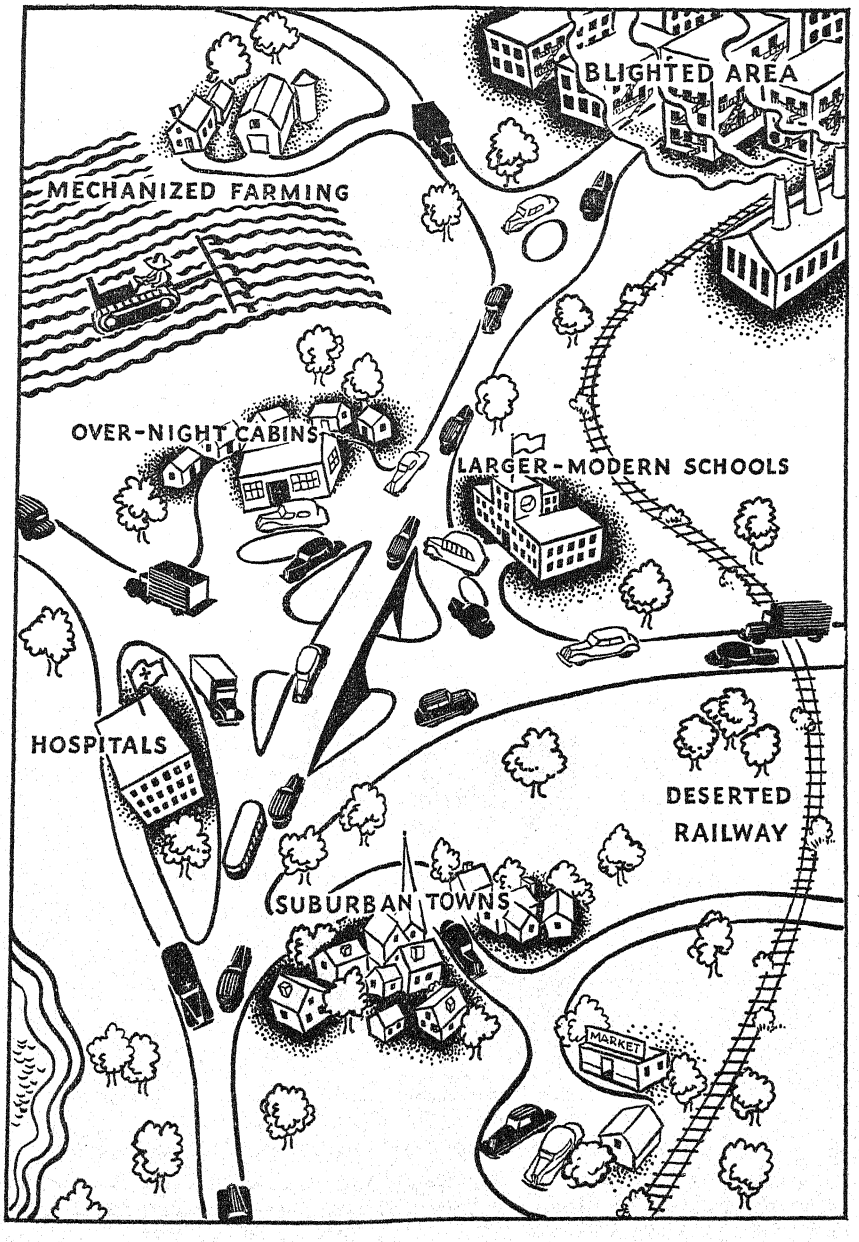


FIGURE 143. THE SOCIAL EFFECTS OF THE AUTOMOBILE

The influences of the automobile on society are so numerous that they are incalculable, but the above sketch shows a few of the important ones. From WILLIAM F. OGBURN, MACHINES AND TOMORROW'S WORLD, *published by the Public Affairs Committee of New York City.*

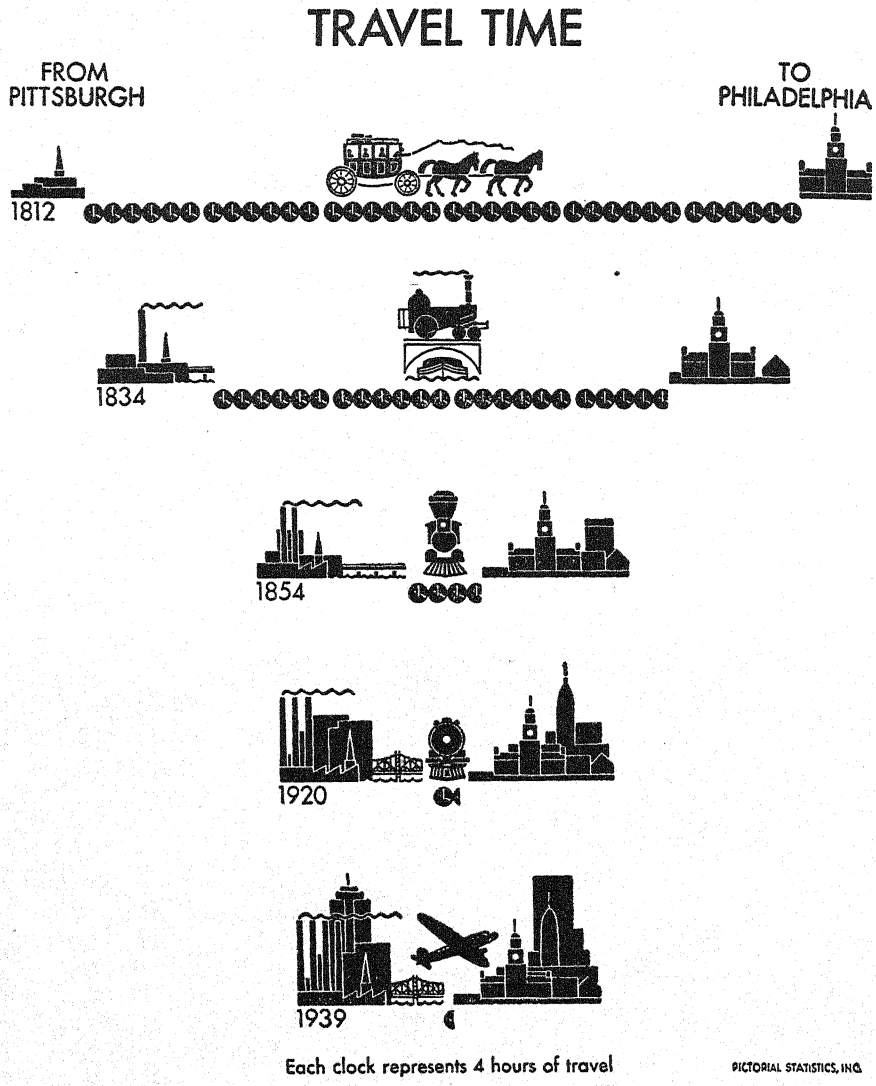


FIGURE 144. THE SHORTENING OF THE HOURS OF TRAVEL

The change in travel time is well illustrated by the fact that recently a pilot in an airplane covered all the distance in one day that George Washington traveled throughout his whole lifetime.

that the creation of something sufficiently new in structure to be called a social invention ordinarily requires much more than a mechanical invention. In fact, of the various elements, mechanical or social, that go

into the creation of a social invention, often mechanical influence is slight, negligible, or even non-existent. The mechanical element in the invention and adoption of voting for proportional representation is slight indeed, and negligible or non-existent in the invention of the Australian ballot. The chain store depends to a certain extent on the truck and the packaging inventions. But the boycott, a social invention, does not depend on any immediate mechanical invention. Neither does woman suffrage. Likewise, tag-day as a social invention seems to be independent of any new mechanical invention, though printing makes tagging simpler. Again, Esperanto as a simplified language has no recourse to any element of a mechanical nature. It can be concluded, therefore, that mechanical elements are not necessary to social inventions.

THE SOCIAL EFFECTS OF SOCIAL INVENTIONS

The causes of social change are, of course, not confined to mechanical invention and discovery in applied science. Social inventions cause social changes, too. Such indeed is the purpose of social legislation, if a law of this type may be called a social invention. A graduated income tax has the social effect of distributing wealth. If the tax is sharply graduated and is supplemented by social legislation giving benefits to the less wealthy in the form of social insurance, then the effect is to take money from the rich and give it to the poor. In this case there are two or more social inventions converging to effect the result of redistributing wealth. Similarly, another pair of social inventions, child labor laws and legislation making school attendance compulsory, have changed the family functions by reducing the control of parents over their children.

Derivative influence of social inventions. The influence of a social invention extends also into derivative effects, like the links of a chain. The effect of the prohibition of the sale of intoxicating liquors in the United States from 1919 to 1934 was not confined to altering the drinking habits of the population. The force of this innovation continued until criminals developed a highly organized business based on gang warfare. As a secondary derivative effect of prohibition, there were repercussions on the courts, on prisons, and on politics.

That a social invention may have many influences extending in different directions, like the spokes of a wheel, is illustrated by war. In the World War of 1914–18 the war establishment in the countries of the combatants influenced the whole range of social institutions.[1] There was

[1] For a discussion of the influence of war see Chapter XXIII.

hardly an industry that was not affected. Farmers felt the shortage of labor. Women went to work outside the home as never before. The marriage rate and the birth rate were lowered. The curricula of schools and colleges were changed; news was censored. Money was worth less than it had been before. The influences of war and war preparations extended outward in many directions throughout the social realm. It may be concluded, then, that social inventions are much like mechanical inventions in the effects they have on society.

Social inventions as a source of technological inventions. Social inventions also cause mechanical inventions. It has been shown: (*a*) that mechanical inventions cause social inventions; (*b*) that social inventions bring about other social inventions; and (*c*) that mechanical inventions lead to the development of other mechanical inventions. It is also true (*d*) that social inventions cause mechanical inventions. For instance, the new building codes in New York City restricting the height of buildings, and providing for more light led to a new type of tall building construction that tapers off to a point, somewhat after the manner of a pyramid. Another illustration is the machine that grades examination papers. The invention of the true and false type of examination, when used on a large scale, led to the invention of a mechanical grader. A final illustration is the invention of a machine that signs checks, which is said to be the result of the social invention, the Agricultural Adjustment Administration, one of the early measures of the Roosevelt administration. The A.A.A. had to send out checks frequently to millions of farmers in payment for reduction of acreage in crops, necessitating the invention of such a machine.

That changes in social conditions bring about mechanical inventions is another proof of the old adage that necessity is the mother of invention. The social inventions named in the preceding paragraph developed needs for mechanical inventions. New social needs due to social changes are indeed a greater cause of mechanical invention than are specific social inventions. Thus war has been at various times in the past a developer of mechanical invention. War is a change in social conditions. It may also be argued, of course, that war is a social invention which is put to work from time to time. War was responsible in modern times for the invention of the tank and for various types of explosives and guns. In the World War of 1914–18, the entrance of the United States led to a great spurt in the production of wartime inventions. The number of these inventions sent to the Naval Consulting Board was so great as to

require an office force of 18 persons to handle them. At the peak of this period of inventiveness as many as 600 letters a day were received.[1] Not all these inventions were workable. In fact only a very few were considered by the Naval Consulting Board to be meritorious and practicable. The most important naval warfare inventions developed in the World War were the two used to combat the submarine: the listening device and the depth bomb.

In discussing further the interrelations between social conditions and mechanical inventions, we may note that we readily find many more social conditions arising from mechanical inventions than mechanical inventions resulting from social conditions, unless social conditions are defined loosely as any human need. The relative ease with which social conditions can be traced to technological changes and the relative difficulty in finding mechanical inventions due to social changes is an empirical observation that is important for an understanding of why the superorganic changes.

PRIORITY IN SOCIAL CHANGE

It is clear that social conditions bring about mechanical inventions and also that mechanical inventions cause changes in social conditions. But it is desirable to know which sequence is the more common. A comprehensive generalization on this point has not been established, but at the present time in the modern world, it appears easier to find illustrations of technology causing changes in social conditions. Hence we are inclined to favor the hypothesis of the greater importance of the sequence of technology causing social changes.

Priority of mechanical inventions as causal factors. By using the method of priority and sequence a good deal can be learned about how much mechanical invention influences social change. The invention of barbed wire preceded the breaking up of the cattle country of the Great Plains into small farms. In 1874 the first barbed wire was sold in the United States and by 1880 over 80 million pounds had been sold. The sequence alone, of course, does not establish a causal relation. The events of today precede all those of tomorrow, but every event today is not a cause of every event tomorrow. The causal connection must be established aside from priority. In the case of the barbed wire, historical research shows the prohibitive cost of wooden fences in a treeless country

[1] LLOYD N. SCOTT, NAVAL CONSULTING BOARD OF THE UNITED STATES (Washington: 1920), p. 123.

and demonstrates the enormous sale of barbed wire to fence off the farms. "Barbed wire made the hundred-and-sixty-acre homestead both possible and profitable on the Prairie Plains."[1]

The problem is complicated where there is a long chain of causes and effects. Thus, in the series *D*, *e*, *F*, *G*, it is noted that *D*, a social invention, is influential in producing *e*, a technological invention, which in turn has an effect on social condition *F*, and so on. To pick the mechanical invention *e* out of this series and say that it influences *F* or *G* seems arbitrary. Why not start with *D*, the social invention, and say that it causes a mechanical invention and later social changes? The justification for singling out any one item in such a series is its importance in reality, not in a schematic arrangement.

For instance, consider the following sequence. The interest in sports led to the invention of basketball, which in turn gave to small towns an *esprit de corps* because of the inter-town rivalry. The interest in sports which led to the invention of basketball is thus a very general cause of inter-town competition. Basketball, however, seems more specific and its invention can be noted as something so definite as to be dated. The rather specific and definite nature of a mechanical invention gives it particular force as a cause of social change.

There are, of course, illustrations of social inventions which are as definite and specific as mechanical inventions. During the World War the farmers in the United States were called upon to help feed the soldiers in Europe, which led to the plowing of many new areas of land which continued to be cultivated when the soldiers returned to the soil, which in turn led to an agricultural surplus and to the depression of the nineteen-twenties. The war is specific and definite, hence the connection of the agricultural depression with war can be readily traced. If all social changes were sharp, new, definite, and precise, it would be easier to identify them as causes of further social changes.

In a schematic sense, as suggested in the series of letters listed before, there is no such thing as an origin, if the question of degree be omitted. Any one change that may be chosen was set in motion by something else, which was also in motion, and so on back to so-called ultimate causes. Similarly for changes in the social heritage as a whole, priority may not be assigned either to the material culture or to the non-material culture, for changes in the non-material culture may be influenced by changes in the material culture, which were previously due to changes in the ma-

[1] WALTER P. WEBB, THE GREAT PLAINS (Boston: Ginn and Company, 1931), p. 318.

terial culture, which were previously due to changes in the non-material culture, and so on. When all the interconnected parts of a culture are in motion, and each part exerts a force on some other part, the origin of the motion cannot be located.

Influence of ideas and ideologies. Since all social change takes place through the medium of ideas, there naturally arises the question, whence came the ideas and what are their influences? In answering these questions it may be stated, for the purposes of analysis, that there are two extreme types of ideas, those that center around facts and material objects, and those that center around fantasies.[1] Ideas of the latter kind may originate from man's aspirations, fears, or other emotions; such ideas are called beliefs. Such was the idea that the world would come to an end a thousand years after the birth of Christ, a belief not closely related to fact. On the other hand, ideas may originate from observation of phenomena, as in the case of knowledge of how to navigate a boat. Still other ideas are mixtures or approximations of the two types. Indeed, ideas of fact and of fantasy are probably the extremes on a scale of ideas with various gradations between. An example of an idea between fact and fantasy is the central idea in the laissez-faire doctrine of the functions of the states. Many individuals want to believe that that government is best which governs least, and that the economic forces are self-adjusting as they supply our needs. Hence to such individuals this social philosophy is wishful thinking. On the other hand, many governments have done reasonably well by following a policy of modified laissez-faire. So some ideas are based partly on wishes and partly on observation. To sharpen the presentation, the two extremes of ideas, namely those originating from accurate observation of phenomena and those arising from subjective emotions, will be spoken of as though they were different types rather than the two ends of a series.

As to the influence of ideas, wherever and however they may originate, the material world is more likely to be influenced by factual and observational ideas than by beliefs. Material culture does not bend easily to ideas of the fantasy type. For instance, in the strenuousness of modern civilization, man may occasionally be appealed to greatly by the idea of living the simple life. However much the desirability of this type of life may be preached, it is rather difficult in these days of watches and modern commercial competition for many people to return to the simple

[1] CARL G. JUNG, THE PSYCHOLOGY OF THE UNCONSCIOUS (New York: Dodd, Mead and Company, 1927).

life. Nor, to cite another illustration, does admiration for the old type of family life bring it back in the face of factory production and the apartment house.

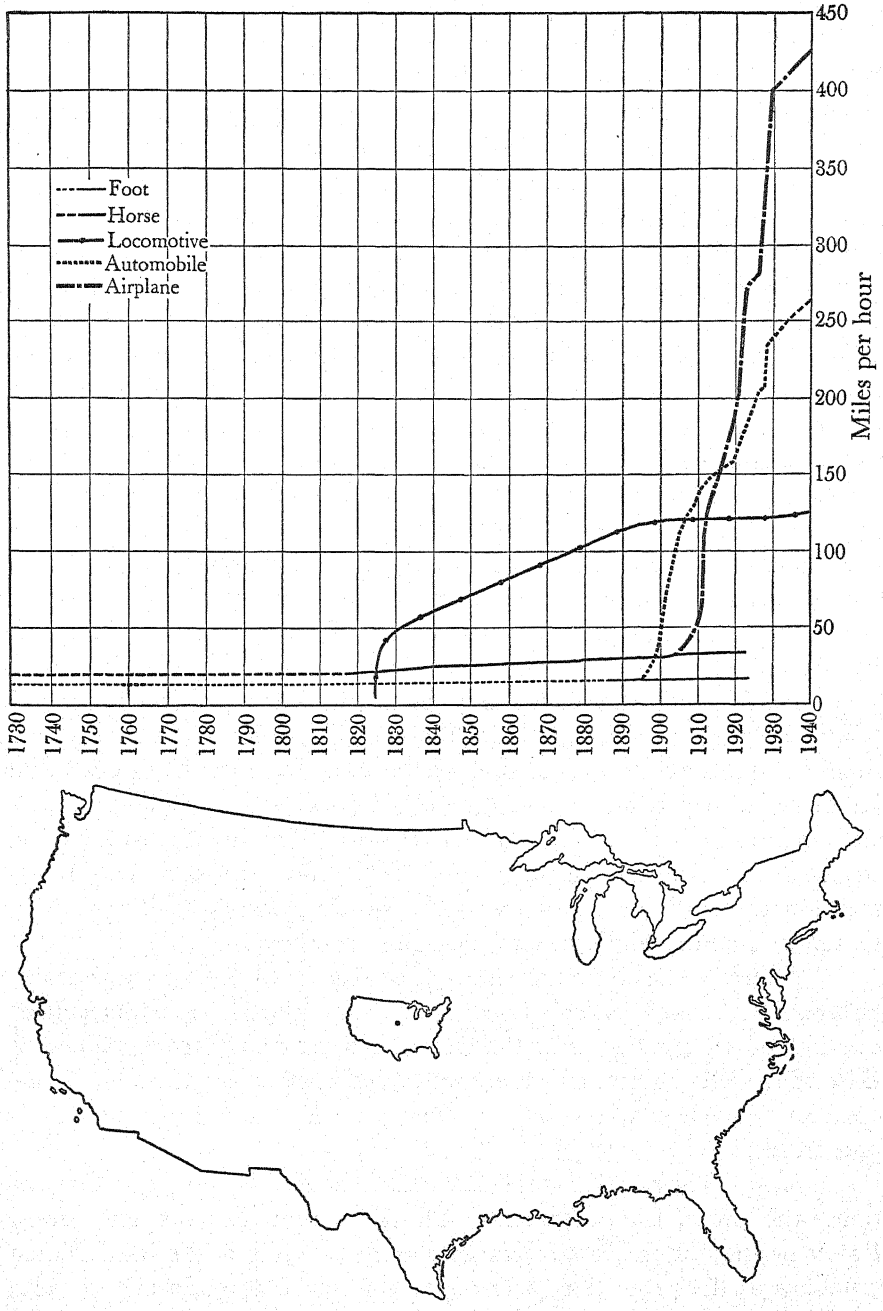
Ideologies of the fantasy type do, of course, affect the material culture. Wishful ideas about national glory may cause a small nation to engage extensively in military preparations. Such ideas may steer the nation away from the advantages of free trade and cause it to adopt high tariffs and other policies that favor factories and chemical industries. The ideas of race held by the National Socialists of Germany have no basis in scientific anthropology or biology, yet they play a rôle in building up a self-sufficient economy in material goods. Other cases frequently cited are the Crusades of the Middle Ages and the present ideologies in Soviet Russia. As to the Crusades, the religious ideas back of them affected the social behavior of the peoples rather more than their technology. The Crusades led to the opening of trade routes and may have had some influence on material methods of transportation, though such an effect is not known definitely. There are those who claim that the economic motives back of the Crusades, resulting in more trade, were less of a fantasy type than were the religious wishes.[1]

A somewhat similar point may be made regarding the Marxian ideologies used in the origin of Soviet Russia. These ideas have had a great influence on social organization during the brief period of the existence of the Soviet Union. How this organization will be modified by social forces in the future is a question. The influences of these ideologies on technology are less apparent. They have led to the adoption of the machine techniques of mass production, as have also the ideologies of fascism and laissez-faire capitalism.

It is not suggested here that fantasies have no influence on technology, but rather that observational ideas have a greater influence. More will be known about the influence of ideas in our society later, when there will have been more opportunity to observe the effects of propaganda and advertising. The claims of very competent propagandists, that given enough money they can make the people believe anything, on any subject, are extreme in view of the limitations imposed by the material and scientific world.[2] The origin and influence of social philosophies, such as individualism, eugenics, or communism, indicate that they are a blend of the fact type of idea and the fantasy type.

[1] E. R. A. SELIGMAN, THE ECONOMIC INTERPRETATION OF HISTORY (New York: Columbia University Press, 1907).

[2] See also the latter portions of Chapter X for further discussion of this matter.



FIGURES 145 AND 146. INCREASING SPEED AND ITS SOCIAL EFFECTS

Ever-increasing speeds have been reducing the size of the U.S. in terms of travel time. Modern train service, by comparison with early train service, reduces it to the size of the small map, and airplane service to only a dot. Chart above from HART, THE TECHNIQUE OF SOCIAL PROGRESS *(Holt and Company), p. 76.*

INFLUENCE OF TECHNOLOGY ON SOCIAL INSTITUTIONS

Social institutions in general are the special province of sociology, rather than of the other social sciences. Hence the subject of change in social institutions needs especially to be discussed. The great social institutions are rather stable organizations lasting over long periods of time and found in nearly all cultures. They are not likely to be modified greatly by a single invention. Dramatic or profound modifications in such great institutions require the influence of clusters of inventions.

Industry. Perhaps the most striking change in modern times is the change in economic organization, seen in the virtual creation of modern production and distribution by the power inventions and various power-using machines made from the metals. Industry has been taken from the household and new types of economic organizations have been set up, such as factories, stores, and banks. The inventions of the factory and railroad grouped industry into huge closely packed cities; now the automobile and electricity are tending to scatter industry, especially the lighter types which can readily use the truck, away from the center of big cities.

Family. Modern technology, in taking industry from the household, has radically changed the family organization. It has placed man's work, except in agriculture, wholly away from the homestead and has removed nearly all woman's economic duties except cooking, housecleaning, and a little sewing and laundering. The inventions affecting the birth rate are reducing the size of the family, and both the above-mentioned sets of inventions are increasing the number of divorces and separations and rendering marriage more unstable.

Church. The church has been least affected by modern inventions, although the church is much less a central comprehensive social organization in modern municipalities than it was in rural districts several generations ago. The church has, moreover, been profoundly affected by discoveries in science, which have changed the nature of religious rituals and creeds.

State. The modern state has been influenced by two sets of inventions, the production inventions and the communication inventions. Power production meant the transfer from the family to the state of such functions as the protection of the aged through old-age insurance, and provision for the young through schools, child labor laws, health measures, and juvenile courts. The transportation inventions meant the growth of the area covered by the state. It meant an interpenetration of

economic life, and with the printing inventions, helped build up group solidarity. Nationalism, moreover, is now being encouraged by the chemical inventions. Finally, these same transportation and communication inventions are leading to a shift of functions from local government to the central government of the whole state. It is evident that the great social institutions are affected by changing technology.

Technology and psychology. Institutions also have important psychological aspects, and personal reactions vary, as can be seen in politics, in family life, among employees and employers, in the church, and in the community. The psychological aspects of modern institutions are not, however, so much the causes of institutional change as they are the result of the changes caused by technology. For instance, the employer and the employee in the days of the handicrafts had a personal relationship because they knew one another well and understood fully the requirements of the tasks undertaken. These psychological attitudes did not change into misunderstandings, lack of sympathy, strikes and boycotts, and thus lead to large scale industry adopting modern technology. Rather, the technology developed the large scale industry and the present psychological attitudes of employee and employer resulted. Hence characteristic institutional behavior follows changes instigated by technology.

SUMMARY

Mechanization is one of the most striking and pervasive phenomena of our times. Unfortunately, its study has been neglected by the social sciences, which have not sufficiently recognized that while technology itself belongs to the field of the natural sciences, its far-reaching effects on social life make it a vital subject for study by the social sciences.

This chapter has undertaken to show something of the effect which advances in mechanization and applied science have had on modern social life. The numerous direct social effects which a major material invention may have was illustrated by the case of the radio, for which over a hundred immediate significant consequences were indicated. Moreover, it was shown that the first social consequences of an invention continue to move outward like ripples in a pond. In the case of the cotton gin, it was seen that, apart from its immediate effect of increasing the amount of cotton planted, it played a significant rôle in causing the further growth of slavery, and later the Civil War. While these derivative effects become increasingly attenuated the further they extend, they are of great significance because of the tremendous number of inventions adopted every year.

When the effects of a number of inventions converge, their influence is even more noteworthy. This was shown for the city, which is essentially the direct result of the manufacturing and transportation inventions. And as in the case of single inventions, clusters of inventions have significant derivative influences; the city, for example, fosters crime, suicide and divorce.

Technology produces social change, but it also may produce social inventions. Occasionally a single material complex is responsible for a new social element, as in the case of the automobile ushering in the tourist camp. But generally a number of material inventions converge to yield a new social invention, as was shown to be true for social insurance. Social invention, however, need not depend on material elements but may develop independently. Examples given included the Australian ballot, the boycott, and Esperanto. Such social inventions, like mechanical ones, also have social effects, which may carry on, as well, into derivative effects. Both mechanical and social inventions are thus important factors in social change. The former, however, tend to be

more definite and specific, can be dated, and thus are more readily identified as origins of change.

All social change takes place through the medium of ideas. Some ideas flow from observable facts and others from fantasies, while still others represent a combination of the two. Material culture is influenced largely by the first type, while such aspects of the social heritage as literature, art, religion, and social philosophy may conform to the second type, or to a blend of the two.

Particularly noteworthy is the influence of technological change on the great social institutions. Modern industry is seen to be the virtual creation of the power inventions and the various power-using machines made from the metals. Some of the derivative effects of the economic changes have been great, as in the case of the family. Dramatic too have been the effects of certain inventions such as the effect of contraception on the birth rate and on morality. Religion has been least affected by material developments, since its essential concern is with non-material values, but even here doctrines have been radically affected by scientific discoveries. Next to the economic organization, the state has been most strongly influenced by changing technology, principally by the production inventions and by those of communication. These have helped to extend both the area of the state and the scope of its functions.

QUESTIONS FOR DISCUSSION

1. Why do we give special consideration to technological developments as a cause of modern social changes?
2. What difficulties lie in the way of tracing the derivative social effects of an invention? Elaborate, using the automobile as an example.
3. Why are the cumulative influences of inventions so important? Explain, using the growth of suburbs as an illustration.
4. In what sense may modern crime be said to be a result of the power inventions?
5. May a mechanical invention bring about a social invention? Vice versa?
6. How have various social inventions changed the functions of the family?

7. What might be some of the social effects of the introduction of efficient air-conditioning for automobiles?
8. How has the use of the airplane in warfare changed the status of the urban non-combatants behind the firing line? How has the airplane affected diplomacy?
9. What inventions helped to produce the modern city? What inventions are changing its nature?
10. What are some of the social effects of the social invention of old-age insurance?
11. What social changes may be expected from the great developments which are now occurring in industrial chemistry?
12. Can the effects of an invention be fully anticipated? Why?

TOPICS FOR REPORTS

1. Sketch the multiple social effects of the airplane, using the account of the radio given in this chapter as an example.
2. The report of the President's Committee on Technological Trends.
3. The social effects of the auto trailer.
4. The immediate and derivative social effects of war.
5. The social effects of Buchmanism.
6. The effects of recent inventions upon education.
7. Outstanding social inventions of the twentieth century.
8. The effect of modern communication inventions on international relations.

SELECTED READINGS

BEARD, CHARLES A., editor, WHITHER MANKIND. New York: Longmans, Green and Company, 1929.

This book contains sixteen essays on the influences of machines on various customs and institutions of man. The thesis of the book is that western civilization is a technological civilization.

BEARD, CHARLES A., TOWARD CIVILIZATION. New York: Longmans, Green and Company, 1930.

A projection of WHITHER MANKIND *into volume two. The approach is to make inquiry into how adjustment in different parts of culture may be made with a view toward improving the adjustment with machines.*

BEARD, WILLIAM, GOVERNMENT AND TECHNOLOGY. New York: The Macmillan Company, 1934.

Charles Beard's son has carried one step farther the technological approach of his father, in an excellent, careful study of how modern governments are influenced by changing technologies and of how problems are created for governments by inventions.

CHASE, STUART, MEN AND MACHINES. New York: The Macmillan Company, 1929.

The effect of modern technology on society is effectively set forth by the author. Some of the more serious aspects of the machine, especially on the lives of workers, are charted.

FURNAS, C. C., THE NEXT HUNDRED YEARS. New York: Reynal and Hitchcock, 1936.

An excellent account of the major trends in science and their possible future development, with considerable speculation on how they may affect human happiness and welfare.

GILFILLAN, S. C., "SOCIAL EFFECTS OF INVENTIONS," TECHNOLOGICAL TRENDS AND NATIONAL POLICY, National Resources Committee.

The author has some stimulating suggestions as to possible effects of forthcoming inventions. The treatment is somewhat uneven, as was probably dictated by the material.

GILFILLAN, S. C., SOCIOLOGY OF INVENTIONS. Chicago: Follett Publishing Company, 1935.

This book really deals primarily with the social conditions giving rise to invention, but Part Seven is especially concerned with some of the effects of inventions and contains some very pertinent observations.

HORNE, ROMAN L., and EUGENE G. MCKIBBEN, MECHANICAL COTTON PICKER (one of a series sponsored by the Research Division

of the Works Progress Administration). Philadelphia, August, 1937.

This study is one of the few in which an attempt has been made to outline in advance the social effects caused by an impending invention. The most careful analysis available concerning the social effects of the cotton picker.

MUMFORD, LEWIS, TECHNICS AND CIVILIZATION. New York: Harcourt, Brace and Company, 1934.

A brilliant and readable book which indicates some of the more striking influences of large inventions on the course of history. An illustration is the interesting treatment of the influence of the invention of glass on society. The author is more successful in his historical treatment than in the analysis of future trends.

OGBURN, WILLIAM F., SOCIAL CHANGE. YOU AND MACHINES, American Council on Education. Chicago: University of Chicago Press, 1934. MACHINES AND TOMORROW'S WORLD. New York: Public Affairs Committee, 1938.

OGBURN, WILLIAM F., and S. C. GILFILLAN, "THE INFLUENCE OF INVENTION AND DISCOVERY," RECENT SOCIAL TRENDS, chapter III.

STAMP, SIR JOSIAH, THE SCIENCE OF SOCIAL ADJUSTMENT. London: The Macmillan Company, 1937.

This book includes the address of Sir Josiah Stamp as President of the British Association for the Advancement of Science. Probably one of the best general expositions of the problem of the adaptation of society to the influences of science and technology.

TECHNOLOGICAL TRENDS AND NATIONAL POLICY, National Resources Committee.

This study attempts to chart the significant inventions of the future and makes some reference here and there to their possible social effects. The early chapters are a fruitful source of information on the effects of inventions.

XXVII. SOCIAL DISORGANIZATION

THIS CHAPTER on disorganization is placed in the section on social change rather than in the section dealing with the organization of society. The reason is the thesis of this chapter: that social disorganization is caused by rapid and extensive change.

An organization is an articulation of different parts with various functions to perform. The human body is a beautiful illustration of organization. There are organs for the intake of food and air and for the excretion of waste. The circulatory system feeds all cells of the body and the nervous system stimulates and controls the activity of the various parts and of the whole. Organs of sight, hearing, taste, and smell are so placed as to provide reaction and movement. The whole is in balance.

The life of a city is likewise excellently organized. In the hours before dawn, the food to be distributed begins its movement in trucks and milk wagons from central markets and terminals to retail distributors and to homes. The transportation system swings into operation in time to carry the workers to factories, stores, and offices. The amount of transportation available bears an approximate relation to the number of people seeking it. When the lunch hour arrives there are restaurants and eating places for all. The amount of food on hand is more or less what will be demanded and a certain balance is struck. The goods to be sold are on the shelves and the raw materials are in the factories. Each person knows his job and is there to do it. The whole is demobilized in an orderly manner from dusk to midnight. The organized life of a city goes on from day to day for thousands of people engaged in multitudinous tasks of great variety. How such a city may become disorganized is told by the author[1] of *Gone With the Wind* in her description of the capture of Atlanta in 1864.

> From Leyden house down to Five Points, the street seethed with activity, the activity of an anthill just destroyed. Negroes were running up and down the street, panic in their faces; and on porches, white children sat crying untended. The street was crowded with army wagons and am-

[1] MARGARET MITCHELL, GONE WITH THE WIND (New York: The Macmillan Company, 1936), pp. 358–61. Reprinted by permission of the Macmillan Company, publishers.

> bulances filled with wounded and carriages piled high with valises and pieces of furniture. Men on horseback dashed out of side streets pell-mell down Peachtree. . . . Throngs of women were coming up from the direction of the railroad tracks carrying hams across their shoulders. Little children hurried by their sides, staggering under buckets of streaming molasses. . . . Lying in the pitiless sun, shoulder to shoulder, head to feet, were hundreds of wounded men, lining the tracks, the sidewalks, stretched out in endless rows under the car shed. . . . Everywhere, swarms of flies hovered over the men, crawling and buzzing in their faces. . . . The smell of sweat, of blood, of unwashed bodies, of excrement rose up in waves of blistering heat . . .

Disorganization was almost complete with the loss of synchronization of smoothly working parts. In the confusion there was no balance in the division of labor.

The change which upsets organization may be violent and quick as in war or flood, or it may be less rapid as when an oncoming business depression disorganizes the real estate market or when a war disorganizes the trade of neutrals. In any case, most disorganization results from the impact of forces producing social change. For instance, there is usually some sort of balance in the prices of various commodities. So many bushels of wheat will buy a plow. We spend twenty per cent of our income for rent. But if there is inflation the price structure becomes disorganized. Prices of plows rise more rapidly than prices of wheat; rent is slow to rise.

Society as a going concern is an organization. The organization consists of habits and institutions, among which there is a fair degree of equilibrium. This equilibrium is often shaken by social changes. We begin therefore by considering how the balance achieved in a stationary society contrasts with the conditions of a changing society.

STATIONARY AND CHANGING SOCIETIES

Contrasting characteristics. There are certain characteristics of a stationary society that are different from those of a changing one.[1] For instance, in a stationary society parents know with much more certainty what sort of occupations and lives will be the lot of their sons and daughters and grandchildren than do parents in a changing society.

A stationary society is one where there is no notion of progress or of

[1] WILLIAM F. OGBURN, "STATIONARY AND CHANGING SOCIETIES," AMERICAN JOURNAL OF SOCIOLOGY, 42:16–32, July, 1936.

reform. These are great goals in a changing society. In a stationary society, the hopes of humanity center around such interests as marriage and children, a good food supply, and a heavenly abode after death, rather than around improving living conditions here and now. Interest centers upon changing the characteristics of individuals as they grow up into men and women, rather than upon changing environment. The emphasis is on individual ethics rather than on social ethics.

Experimentation has long ceased in a stationary society. Trial and error have already occurred before the society became stationary, and the best practices have been agreed upon, that is, the best in view of existing equipment. The attitude is expressed by the remark, "we do it that way because it has always been done that way." In modern society something new is constantly occurring, and the attitude is, "there is always a better way." In a changing culture the dividing line of political opinion tends to be that between radicals and conservatives.

A stationary society favors the elders, who become wise by years of observation on conditions that do not change, while a changing society favors youth. The young workers who are equipped with the most recent and advanced techniques readily displace those who are older. It is interesting to note, too, that the age of workers in the old occupations in the United States today, such as blacksmithing, is much greater than in new occupations such as those concerned with automobile making.

In a stationary society rules of behavior can be formulated successfully in great detail, because conditions do not change. What to eat and what not to eat can be prescribed because the food supply remains the same and no new knowledge will come in, let us say, about chemicals or vitamins. The conditions for marriage and divorce can be laid down with exactness for future generations. A stationary culture is one where there may not be just ten commandments but thousands of them. It is a culture of custom, of moral codes, of manners, of respect for the law.

On the contrary, when conditions are rapidly changing, a rule as to how to behave for one period will not apply to the next, for conditions will be different. "Early to bed and early to rise" is an essential maxim, for instance, when there are animals to be fed. The wisdom of the adage is less apparent when there is intellectual work to be done which may be accomplished best in the late evening. Morals that will carry through changing conditions must of necessity be very general, such as "the greatest good to the greatest number," a maxim too general in fact to be of any help to a non-intellectual person. Without the guidance of specific

rules, the individual is thrown back on an analysis of consequences. Thus, moral codes, and laws also, tend to lose the respect they command in more nearly stationary eras.[1] The dominance of the folkways and mores so well described by Sumner is greatest in societies, unlike our own, that are not changing or are changing very slowly.[2] It is concluded then that social change alters the nature of society from what it is when conditions are stable.

THE INTEGRATED CULTURE PATTERN OF A STATIONARY SOCIETY

In the preceding chapter the influence of social change in general on different customs and institutions has been noted. There remains to be discussed the effect of social change upon the total culture, that is, upon the pattern made by the different parts of culture when fitted together as they always are. Thus the pattern of culture in colonial America was quite different from what it is under modern industrialism. There the pattern was one of small governmental units, and little industry outside the home. The family was very important and the village and the church ruled men's behavior. Now the parts fit into a different design. Industry and government have grown; the village is less conspicuous; the family governs a smaller area; the church is more restricted in its range of influence.

Adaptation of new culture trait to old patterns. Before proceeding to discuss the pattern of cultural relationships, however, it is desirable to make a few observations on the method whereby any new element is assimilated into the culture. Usually a new element is experimented with. Individuals react to it in different ways. As a simple illustration, the toothbrush may be cited. The toothbrush was introduced into modern society so recently that observations may be made upon its adoption. At first teachers in nurseries and schools taught that the movement of the brush in use should be horizontal. Later, vertical or rotary movements were suggested. There were combinations of movements for various parts of the oral anatomy. Moreover, not every individual uses the brush in the same way. The variety of methods of using a toothbrush runs into the scores. Hence various types of toothbrushes may be invented to facilitate the different methods. There have,

[1] ELEANOR ROWLAND WEMBRIDGE, LIFE AMONG THE LOWBROWS (Boston: Houghton Mifflin Company, 1931), p. 247.

[2] How rapid cultural change produces a condition of "normlessness" (*anomie*), has been effectively shown by the French sociologist, EMILE DURKHEIM, in LE SUICIDE (Paris: Alcan, 1897).

indeed, been 713 patents granted on the toothbrush in the United States. Clearly, the period of adoption of the toothbrush has been one of trial and error. Eventually, the less desirable ways will become obsolete. One or more preferred ways and types will be chosen and there will be no further experimenting.

Somewhat the same procedure occurs whenever a culture trait is adopted, whether it be the cultivation of maize, or a new religion. Such trait complexes are experimented with, though perhaps not so much as in the case of a simple material device like the toothbrush. A large culture complex becomes modified as it is adjusted to the other parts of the culture. The adult education movement as it is adopted in different countries must be modified to fit the existing educational and occupational systems. In Scandinavia it is being adopted in a different way from that in the United States. In Sweden there is less high-school education and more co-operative activity than here. Hence co-operatives there furnish adults some of the subjects taught in high schools here.

There is, however, a period of trial and error, with modification to some extent of both the culture traits adopted and the culture traits to which they must be adjusted. It takes some time to make the adjustment. In our own culture, for instance, street and road conditions have not yet become adequately adapted to the automobile. Nor has the family or church made a wholly satisfactory adjustment to the automobile. In the course of time an adjustment will have been made, only to have some new invention cause a new modification.

The trial and error method of adapting a new culture trait into the culture pattern seems to lead to what is considered a progressively better adjustment. For instance, in adjusting compensation to those injured by dangerous machinery in the United States, the first attempt was to employ the old common law on liability; the second attempt was to develop new laws on employers' liability; and the third trial yielded workmen's compensation insurance, an improvement on the other procedures; and now workmen's compensation is being improved.

Prevailing folkways usually represent the "best" adjustment. In the preceding paragraph the words "better adjustment" and "improvement" have been used. What is meant is not that they are better by scientific proof, but that the opinion of the time considers the modern toothbrush and present-day workmen's compensation better than earlier models. Opinion, of course, may not be unanimous in a large heterogeneous society. There may be some who think a toothbrush is a waste

of money and injurious to gums and enamel. Other people may think it good to let careless persons die an accidental death. Then, too, there are various points of view in judging a good. Silken-like stockings became the common heritage in the nineteen-twenties in the United States. The experimenting that was done made the stockings thinner, which may have been "the best adjustment" from the point of view of esthetics, but hardly the best adjustment for health or for economy. In this sense the experiment might be said to have yielded the worst possible adjustment.

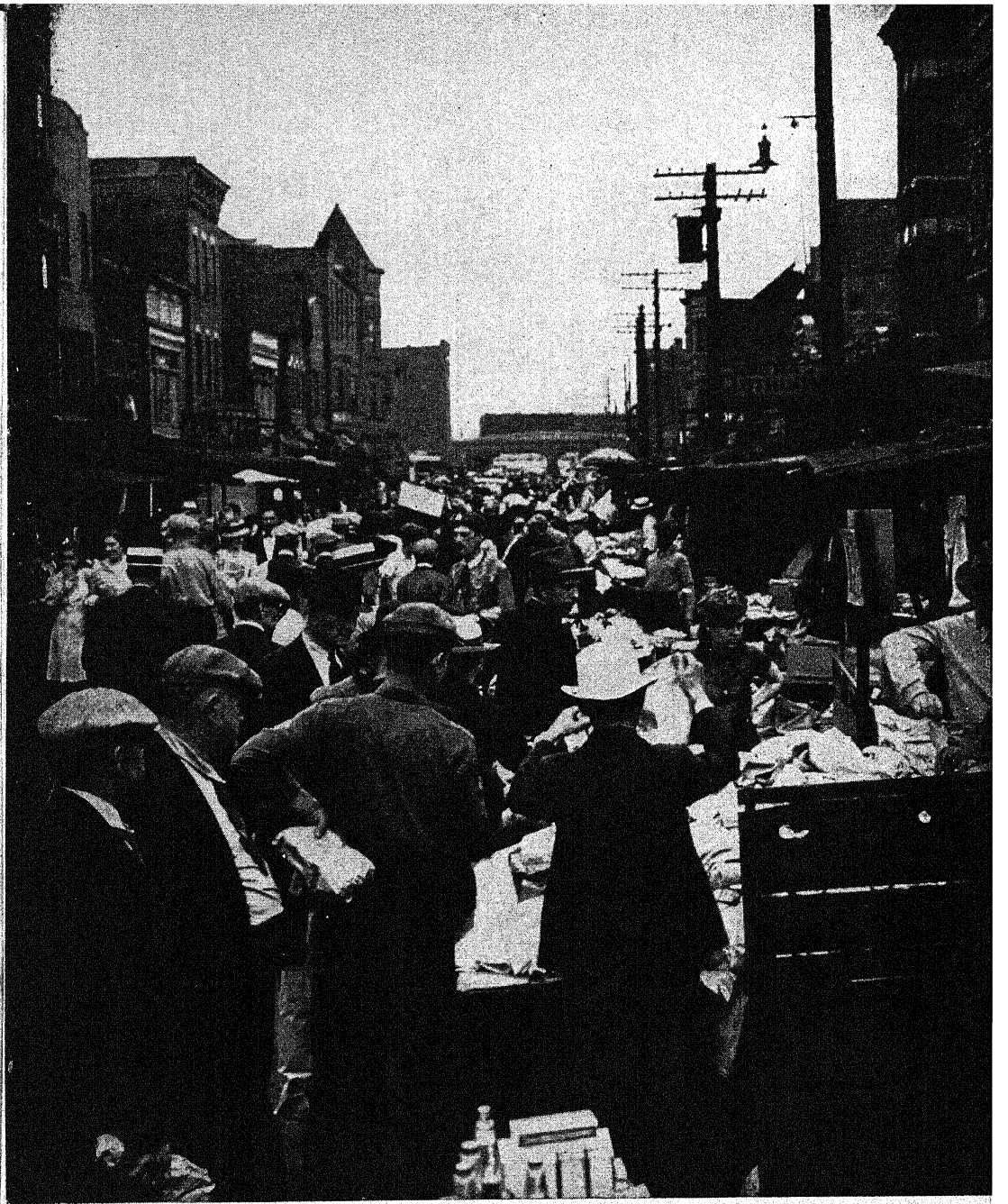
It is an interesting question as to whether in the course of time society works out through experiment the best use of a new culture trait. "Best" is, of course, not a scientific term, but a moral one. Experiment, however, if freely resorted to, would seem to lead to choices that a majority think are most desirable. That another culture would view such a result of experiment as the best is not certain, for new evidence and new values may enter into the appraisal.

But the adjustment to a culture trait is surprisingly good if the trait is one of long standing, whether it be a birch bark canoe, an Eskimo shoe, or a Hopi method of planting corn. The casual traveler may not see it so, but the ethnologist or the immigrant who comes to live in a culture often finds the prevailing ways the "best." [1] Almost any culture could be improved by bringing in new inventions. But without these new inventions, the customary practices are better than outsiders may think. The cultivation of land in small strips is not a good practice for Iowa farmers with tractors, but it worked very well in Europe in the Middle Ages, with hoe cultivation, soil that needed to be protected from erosion, the lack of fertilizers, land that had to lie fallow every few years, and laws of inheritance that called for the division of land.[2]

This discussion about the "best" adjustment to a new culture trait is not from the point of view of either the biological welfare of the individual, or his happiness, but rather from the standpoint of an harmonious integration of the parts of culture. For instance, in the case of workmen's compensation for accidents, the plan ties in better, so it is agreed, with

[1] "If the Eskimo methods of supplying the three main needs of man are scrutinized, there can be nothing but astonishment at the cleverness displayed in adaptation and at the perfection of the result. Civilized man cannot better them much, and finds it necessary, when sojourning in the Arctic regions, to adopt the native ways." A. G. KELLER, SOCIETAL EVOLUTION (New York: The Macmillan Company, 1931), p. 336.

[2] VLADIMIR G. SIMKOHOVITCH, "HAY AND HISTORY," POLITICAL SCIENCE QUARTERLY, 28:385 403, September, 1913.



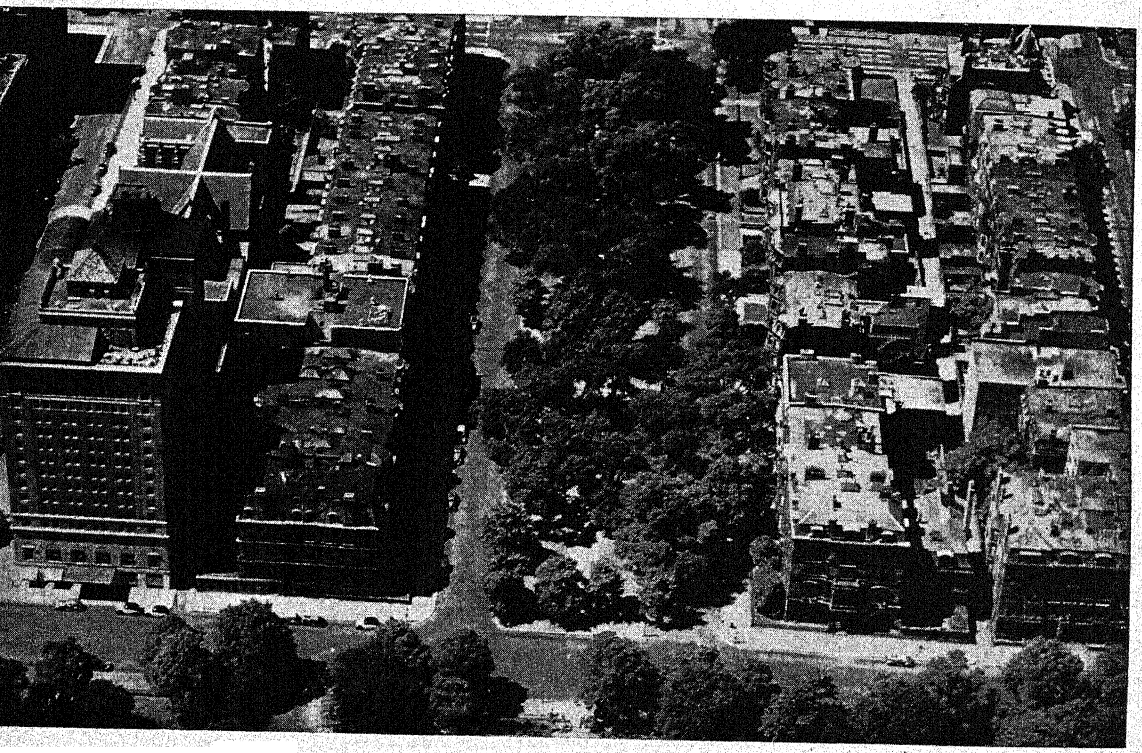
Ewing Galloway

PLATE 16. CROWDED IMMIGRANT SECTION

Immigrants can come to the United States from Europe in a week, but they cannot adjust their lives to the new conditions so quickly. They remain in congested urban dwellings, pursuing the old push-cart method of merchandising, and it takes many years even to learn adequately the new customs. The changes in their migration and their customs occur at unequal rates of speed and there is maladjustment.



Bettmann



H. H. Harris

PLATE 17. THE EARLY CITY AND THE MODERN CITY

the legal profession, with the courts, with the labor movement, and with factory production, than did the old common law which led to bad legal practices, to congestion of courts, to unrest in the ranks of labor, and to inadequate production. In other words, the parts of culture that are related to workmen's compensation are now in a better balance than formerly.

In an old society which is receiving few new elements of culture, and hence is nearly stationary, the experiments with formerly new traits may be assumed to have been carried through and the best choices made. The "best" adjustments to the existing culture traits have been worked out. In a long established culture, then, it is a fair assumption that there is a more harmonious adjustment of the different parts of the culture than in a society where there are newly adopted parts of culture. A new trait is a force which is likely to disturb the pattern of balance already worked out. This is, of course, not to say that the new trait may not be desirable. The city may be desirable, but it has not been with us long enough for the family, the church, and other institutions to achieve the best possible adjustment to it.

The integrated culture pattern of a stationary society exemplified. There are no really stationary societies today, for diffusions of culture traits, potent causes of change, have become world wide; and the preliterate cultures are in contact with the advanced cultures of the white and yellow races, and hence are undergoing change. But some cultures are much more nearly stationary than others; and descriptions of such societies show very clearly the balance and the feeling of adjustment to conditions as they are.[1]

An instructive illustration of a stable society is afforded by the natives of Hawaii in the long period of their history before the coming of the white man.[2] The island was perhaps first inhabited about A.D. 500, and for five hundred years thereafter it enjoyed undisturbed isolation from the rest of the world, for not until the eleventh and twelfth centuries was the land invaded again by Polynesians. Five hundred more years elapsed before the first white men arrived. For approximately a thousand years the island culture was almost completely free from outside influence and disturbance, with the result that a particularly satis-

[1] E. SAPIR, "CULTURE, GENUINE AND SPURIOUS," AMERICAN JOURNAL OF SOCIOLOGY, 29:401–29, January, 1924.

[2] ANDREW W. LIND, AN ISLAND COMMUNITY (Chicago: University of Chicago Press, 1938), chap. v.

factory cultural adaptation was achieved by the natives. The island resources were limited, but not unduly so; hence they permitted an adjustment without struggle. The native diet of pork, coconut, breadfruit, bananas, and sweet potatoes was adequate and well balanced. The natives were splendid of physique, their good health being the subject of frequent comment by observers. The two-thousand-mile sea barrier served as a defense against microbes hostile to man elsewhere; cholera ravaged Europe and Asia, but was inert by the time it reached the island. The long period of isolation allowed the natives to establish immunity to the diseases they already had when they first came to the island. As a result, the population grew to between 300,000 and 400,000, where the number was stabilized and kept in check by infanticide, abortion, and intense warfare. The picture of Hawaiian society before the advent of the white man is, then, one of balance and adjustment.

This harmonious situation was disturbed by the arrival of Captain Cook and his sailors in 1778. The long-established equilibrium was upset and a period of disorganization initiated. The natives were ravaged by the diseases of the white man, particularly by the venereal diseases. Alcohol was a negative influence, as was also the introduction of firearms, for the latter made warfare more deadly and played a prominent part in bringing about the decrease in the number of the natives. Within a century and a half, the native population was reduced to but a tenth of what it had been before the white man came. Further cultural innovations likewise proved disturbing, notably the substitution of an economy based on trade for the existing subsistence economy. The effect of the impact of white culture upon that of the Maori was, then, to upset the existing balance and set revolutionary and disorganizing changes in motion.

UNEQUAL RATES OF CHANGE IN A DYNAMIC SOCIETY

A stationary culture that begins to change does not experience the same degree of change in all its parts at the same time. The introduction of the gun and the horse among the Indians changed their method of procuring food and their method of warfare,[1] but among most tribes the religion was not so soon affected by missionaries from the whites. Neither were changes so rapid in the other social institutions.

In the parts of our own culture, the degrees of change are unequal.

[1] CLARK WISSLER, "THE INFLUENCE OF THE HORSE ON THE DEVELOPMENT OF PLAINS CULTURE," AMERICAN ANTHROPOLOGIST, 16:1–25, 1914.

Technological changes in chemistry and electricity are just now very rapid, more so than changes in the production of power and in the construction industries.[1] Laws tend to change rather slowly, while the courts by their use of precedent in deciding cases make the laws even more resistant to change. Religious creeds also resist change, at times rather successfully. There has been little recent change in musical instruments, particularly the violin. Industrial organization, management, and labor are changing rather rapidly. The parts of civilization move forward or backward, then, at very different speeds.[2] Indeed, it would be difficult theoretically to conceive of a culture where the different parts all changed at the same rate.

If the different parts of the superorganic were disparate, quite unrelated to one another, there would be no special concern with the varying rates of speed of the different parts. For instance, grand opera is not very closely related to the mechanization of the cotton culture. A change can take place in either without affecting the other very much. On the other hand, the rearing of children is closely related to the employment of women in industry. A change in one will effect a change in the other. If, then, the parts of the superorganic are not wholly separated but closely correlated, the unequal rates of change are of great importance.

If one part is changing rapidly and a correlated part is changing slowly, a strain is very likely to be created at once between the two unequally moving parts. This would certainly be the case if they had been previously in a harmonious balance. For instance, there is a certain balance between the animal and human labor in cultivating and picking cotton. If the animal power is replaced by the tractor and the human by the mechanical cotton picker, the strain will show in the unemployment among the farm laborers.[3] The strain will also show in the adjustment to the size of farms, which will have to be made larger.

The significance of the integration of cultural patterns. The seriousness of the disorganization produced by unequal rates of change in the superorganic depends upon the closeness of integration of the different parts. If the parts of society were as closely integrated as the parts of a clock, the situation would be very serious. If the various wheels of a clock

[1] TECHNOLOGICAL TRENDS AND NATIONAL POLICY, National Resources Committee (Washington: Government Printing Office, 1937).

[2] "COMMITTEE FINDINGS," RECENT SOCIAL TRENDS.

[3] ROMAN L. HORNE and EUGENE G. MCKIBBEN, MECHANICAL COTTON PICKER (Philadelphia: Works Progress Administration, National Research Project, August, 1937).

were revolving in speed unequally, the clock would cease to function. Integration in the superorganic is less close and more flexible, but there is some degree of integration, as is apparent from the discussion in the chapter on the social effects of invention. There is no known co-efficient of correlation that measures the degree of correlation in the different parts. Each reader will form his own opinion as his knowledge about culture increases.

The cultural lag.[1] The strain that exists between two correlated parts of culture that change at unequal rates of speed may be interpreted as a lag in the part that is changing at the slowest rate, for the one lags behind the other. For instance, cities with increasing population have fewer police per 10,000 inhabitants than cities with decreasing populations.[2] The growing cities do not expand their police force fast enough; the decreasing cities do not reduce theirs soon enough. The change in the number of police lags behind the change in the population. This relationship is expressed diagramatically in Figure 147.

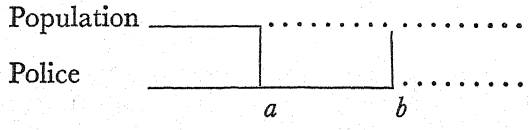


FIGURE 147. SCHEMATIC DIAGRAM OF THE CULTURAL LAG

The population of a city changes at point *a*, but the number of police does not change until some time later when point *b* is reached. Before point *a* occurs, a more suitable number of police exists for the population, but between points *a* and *b* there are fewer or more police in relation to the population; while after point *b* is reached the number of police is changed to be in harmony with the change in population. To be sure, the population may not change very sharply at point *a* and the adaptation of the police to population may be more continuous.

While most cities do not have an abrupt change in population, there are many illustrations of a sudden change. For instance, immigrants change their residence from Europe to the United States abruptly, within a week's time. They change their language and customs, too, but these changes come gradually. Thus the time of the changes in the two variables at *a* and *b* can sometimes be located sharply but at other times the

[1] WILLIAM F. OGBURN, SOCIAL CHANGE, Part IV.

[2] WILLIAM F. OGBURN, SOCIAL CHARACTERISTICS OF CITIES (Chicago: The International City Managers' Association, 1937).

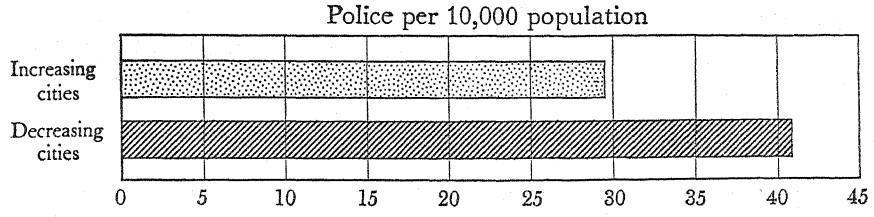


FIGURE 148. CHANGES IN POPULATION AND THE LAGGING NUMBER OF POLICE

Population changes in cities occur prior to the changes in the number of police made necessary by the shifts in population. There is thus a lag or delay in changing the number of police. Where the population has grown and not enough police have been added, there is presumably a maladjustment. So also when a city loses population and the police are not retired fast enough from the payroll, there would seem to be a maladjustment in the city's finances.

period can only be stated in a term of years. For instance, the immigrant learns English, let us say, between a year and two years after coming to America. The exact date at which he learns the language can hardly be located as readily as the day he landed.

The degree of adjustment between the two variables before, between, and after the dates of change is not always easy to prove.[1] In the foregoing illustration, it is not difficult to show that on the average a certain ratio of police to population is desirable. There are objective criteria in dollars and in crimes. Furthermore, a large city needs no different ratio of police to population than does a metropolis. It has been shown that there is no correlation between the rate of crime in cities and the rate of growth, when the police per 10,000 population is held constant.[2] It is not difficult to reach a conclusion as to whether the degree of adjustment between dates *a* and *b* on the diagram is less satisfactory than before *a* or after *b*. It is recognized that the word "satisfactory" is a term of evaluation to which the measuring rod is not applicable. There will be some who maintain, for instance, that a high crime rate is a good thing because it helps to decrease the unfit and thus aids biological progress. Or there may be others who argue like the philosophical anarchists that the police represent tyranny and the invasion of human liberty, hence the fewer police the better. A perfect proof is impossible, but most persons in our culture would agree that crime needs to be reduced, and that there is a ratio of police to population below which

[1] JAMES W. WOODWARD, "A NEW CLASSIFICATION OF CULTURE AND A RESTATEMENT OF THE CULTURAL LAG THEORY," AMERICAN SOCIOLOGICAL REVIEW, 1:89–102, February, 1936.

[2] WILLIAM F. OGBURN, "FACTORS IN THE VARIATION OF CRIME AMONG CITIES," AMERICAN STATISTICAL ASSOCIATION JOURNAL, 30:12–34, March, 1935.

crime will increase; therefore a demonstration can be made regarding the satisfactoriness of adjustment, before, during, and after the lag, that will agree with the judgment of values of most reasonable and informed persons.

There are, however, cases where it is more difficult to establish that one adjustment is more or less satisfactory than another. For instance, during the late nineteenth and early twentieth century in the United States many of the economic tasks performed by women were transferred from the home to the factory. Industry changed first, and the family, which was correlated with industry, lagged behind in its change.[1] Women, in particular, were slow in following their jobs outside the home. Today in the United States about 1 in 3 females over 15 years of age is at work outside the home, and about 1 in 7 married women. The trend is toward an increase in the ratio. With regard to the adjustment of women to the home, evidence could be brought forward to show that before the transfer the adjustment was a good one; there is even an adage to the effect that "woman's place is in the home." But when steam power takes many former tasks out of the home, leaving housekeeping as the main work, and women continue at home as before, the new condition may be an even better adjustment than the old one. Since women do not have as much work, they have more time to rear their children and cultivate the higher life. On the other hand some would claim that this lag is not as good an adjustment, especially for single women and women without children. They may argue, as does the author Olive Schreiner,[2] that women thus become parasites, that their diminished economic value lowers their status, and that with so many possible activities on the outside it is narrowing and detrimental to their personalities to spend all the time at home. It follows from this argument that an improved adjustment will come when more women work away from home, part or full time.

Unequal changes in correlated variables. Not all persons, then, agree as to whether two parts of culture are well adjusted. Although it is difficult to demonstrate harmony in adjustment to the satisfaction of all, it is possible to show (*a*) the time or speed at which changes occur in two variables, and (*b*) whether these variables are correlated or not.[3] This can be done very well in the illustration of the changing population of

[1] F. STUART CHAPIN, CULTURAL CHANGE, chap. x, "The Cultural Lag in the Family."

[2] OLIVE SCHREINER, WOMAN AND LABOR (New York: F. A. Stokes Company, 1911).

[3] JOHN H. MUELLER, "PRESENT STATUS OF THE CULTURAL LAG HYPOTHESIS," AMERICAN SOCIOLOGICAL REVIEW, 3:320–27, June, 1938.

cities and the number of police. It can be assumed as a hypothesis that before the changes occurred in the two variables or before the rates of change became unequal, there was some harmony in the adjustment of the two. Such harmony was clearly present between the family and pre-industrial production. The hypothesis may also be set forth that, with a more rapid change in the one than the other, the adjustment between the two is less satisfactory than formerly. The frame-work is thus set up for a demonstration which may be made to conform or not to conform with the values of a substantial proportion of informed and reasonable persons.

After the lag in one variable has been removed and the establishment of another adjustment has been made, the same difficulty of appraisal arises with regard to values, that is, as to whether the adjustment is better than in the preceding situation. Where the lag has been removed for some time, evidence can be more readily assembled to test out the satisfactoriness of the new adjustment. For instance, the introduction of machinery found workmen unadjusted to the dangerous whirling devices, and many were maimed or killed. But eventually safety coverings for most machines were made obligatory by law, and financial support for the injured was provided by workman's compensation insurance. These new provisions made the adaptation of workmen more satisfactory than it had been just after the power-driven machinery was introduced and before these provisions were enacted. There is not much difficulty in demonstrating to the majority of reasonable men that the final adjustment was better than the preceding maladjustment, since most observers would consider being crippled or getting killed, and leaving wives and little children in need of support, as not a good adjustment. Of course, there may be some who would claim that it is better to let the weaker (in this case, the careless) perish, and not pass on their weakness to the next generation.

The word "lag" implies that the proper course of action is to catch up the lag in the variable that has not changed or that is changing more slowly, so that it will be in better adjustment with the variable that has changed. The number of police should be changed to be in proper ratio to the population. Theoretically the course of action might be to reverse the change in the first variable and bring the adjustment back to where it was before point *a* in Figure 146 was reached. Practically, this course of action is seldom possible. It is not very practicable to force the inhabitants of a city to depart and live elsewhere until the proper

ratio with the number of police is attained. Nor can fast-moving dangerous machinery be abandoned to bring back the days of small hand tools when accidents were fewer. The change has already taken place in the first variable, so adjustments must be made in the second variable to the new conditions. If the change in the variable precipitating changes in other variables could be foreseen and prevented, then the maladjustment could be avoided. But such a course of action requires a high degree of planning and control. The truth and the seriousness of the lags due to prior changes in science is admitted when it is suggested that a moratorium on mechanical invention be declared until the lags of society have caught up;[1] but so far the suggestion has not been acted upon.

Advancing technology and lagging social institutions. The suggestion of a moratorium on natural science is evidence of the recognition that technology often changes first, to be followed later by its social effects. Such was the conclusion of the preceding chapter, where some theoretical argument was furnished to support this very common observation. It is concluded therefore that the many and frequent technological innovations of our modern age, by occurring prior to the social changes they precipitate, are the causes of many cultural lags in society.[2]

The situation may be expressed in another way by saying that as each new invention makes its way into the culture, society attempts various experiments with the new element to find the best adaptation to it. But these experiments take time. It may be asked why there is a delay. Does not the first use of an invention represent an immediate adaptation? Yes, but the immediate use of an invention does not represent the many adjustments that must be made to it. There are derivative effects. For instance, an automobile is made to ride in, and when one rides in it there is an adjustment. But riding in an automobile does not represent the adjustments that have to be made to it by railroads, factories, highways, police, vacationists, hotels, law courts, state governments, churches, schools, farmers, hamlets, marketing agencies, migratory laborers, health departments, and dozens of other social agencies. These do not adjust rapidly enough to the automobile. Take, for instance, the first illustration in the preceding list, the railroads. They did not make their adjustments soon enough, on the financial side,

[1] SIR JOSIAH STAMP, THE SCIENCE OF SOCIAL ADJUSTMENT (London: The Macmillan Company, 1937).

[2] WILSON D. WALLIS, AN INTRODUCTION TO SOCIOLOGY. See chap. 34.

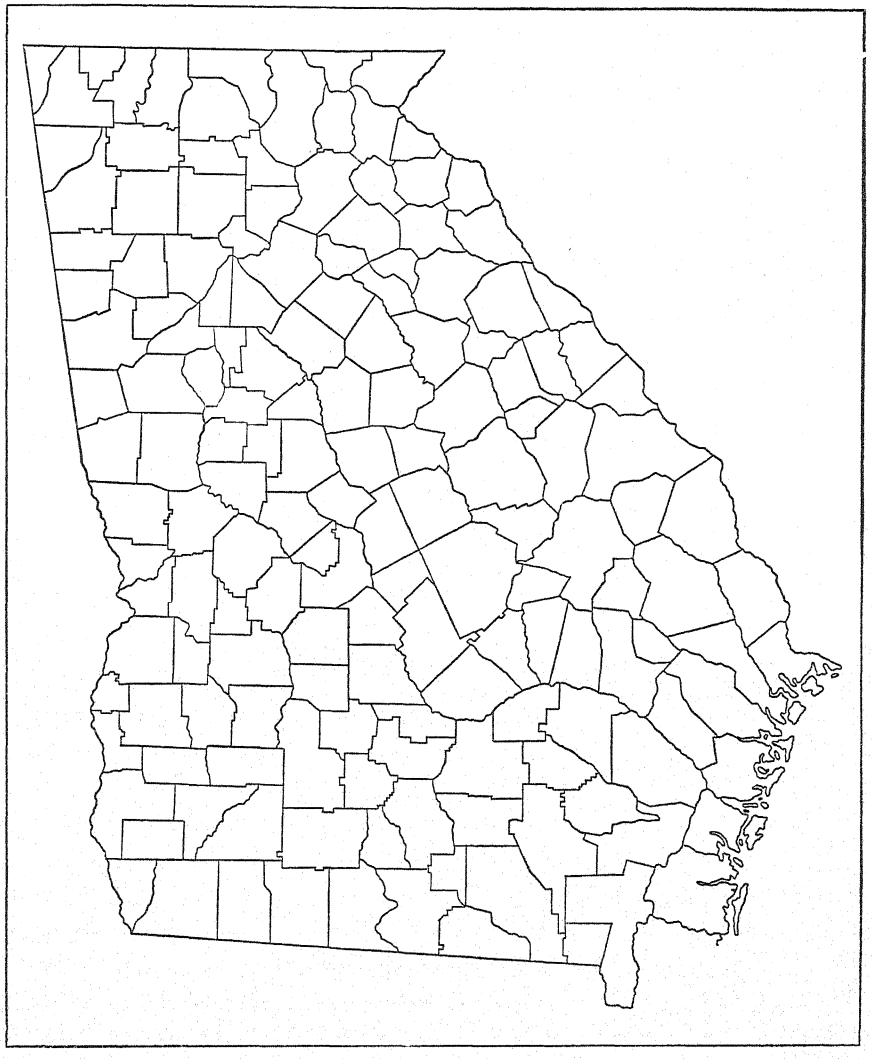


FIGURE 149. COUNTY MAP OF GEORGIA

There are 159 counties in Georgia, most of which were laid out in the days of the horse and buggy. These counties are very small, averaging about twenty miles across, or half an hour on a good automobile road. A person can now ride to the capital of the state in almost as quick a time as he could at one time ride to the county seat. Modern transportation makes feasible a wider base for governmental activity. Many counties are unable to furnish the needed social services. The costs of county government are high. The state might well be served with only 10 counties, instead of 159.

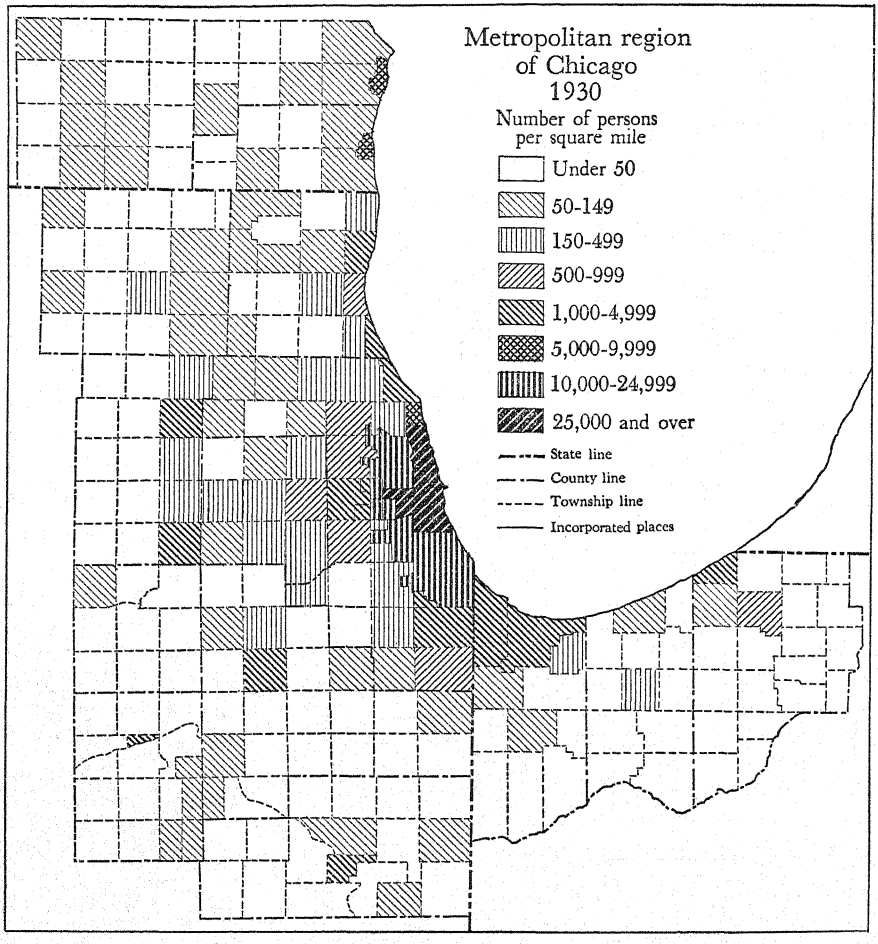


FIGURE 150. THE METROPOLITAN REGION OF CHICAGO

The metropolitan area of Chicago has become an economic unit, but not a political one. There are today 1642 independent governments within the region. Governmental changes have thus lagged behind economic ones, resulting in many maladjustments, such as increasing the costs of government and reducing the efficiency of the social services performed. Map prepared by LEWIS C. COPELAND, *Social Science Research Committee, University of Chicago, 1935.*

in acquiring new equipment and in adjusting their short runs. The lag was costly, as is evidenced by the large number of bankruptcies among railroad companies. The adjustment of a culture to a new invention involves much more than its immediate use.

Some of the significant technological developments and inventions

that are producing cultural lags in contemporary society are the telephone, automobile, radio, moving picture, power-driven agricultural machines, printing, photography, alloys, electric transmission lines, electrical goods, welding, chemical uses of cellulose, coal tar products, chemistry of foods, the airplane, air-conditioning, artificial lighting, contraceptives, coin-in-slot devices, and television. These are resulting in a terrific impact on society, its social institutions, its customs, and its philosophies. The result is an enormous accumulation of social lags.

The fact that technology is at present so powerful a cause of cultural lags, and consequent social disorganization, does not deny that other variables such as social inventions or population changes are creating lags also. In fact, the lag of social changes behind technological progress is simply a special case of the general phenomenon of unequal rates of change of the correlated parts of culture.

Social Change and Social Disorganization

CAUSES OF SOCIAL DISORGANIZATION

A well-organized society is one where the different parts are in a harmonious adjustment. When this adjustment is altered, the balance of the parts is disturbed. The imbalance represents a lack of proper co-ordination. When the imbalance is great and the strain tense, the result is social disorganization. It follows therefore that science and technology, though bringing a more efficient material culture, more knowledge, and a higher standard of living, produce social disorganization as well. When 10,000 musicians are thrown out of jobs as "canned" music through the sound film is introduced in moving-picture theaters, the result is the disorganization of orchestras, and musicians who cannot find employment. That invention causes disorganization in the business world is illustrated by a banker's definition of an invention as "that which makes my securities insecure."

Rôle of culture conflict. The discussion up to this point has emphasized the rôle of culture conflict in causing social disorganization. That is, the introduction into any part of culture of a new trait causing unequal rates of change in correlated portions of culture may bring social disorganization. The innovations may be in either the material or non-material culture. War, a social invention, can cause as great disorganization as technological changes. Technology has been given

special attention only because of its important place in modern life. The large number of important inventions coming on the heels of one another at the present time and precipitating such vast social changes, makes technology a special cause of social disorganization.

The impact of a changing natural environment. It needs to be noted at this point, however, that there are causes of social disorganization other than the impact of one cultural change on other parts of culture. One such is the force of a changing natural environment upon man and culture. Disease, for instance, may work havoc with the functioning of whole groups and communities. It is said that when the Black Death visited England in 1348 it destroyed between a third and a half of the entire population in a little over a year. In Caramania and Caesarea the entire population was said to have been wiped out.[1] In the same way, social life is disrupted by earthquakes, volcanic eruptions, floods, and the various other catastrophic phenomena of nature. The extent of the social disorganization depends, of course, on the ability of the existing culture to cope with these natural phenomena. We now have some knowledge with which to control or check epidemics, to build earthquake-proof houses, and to dam rivers against floods. The force of geographic factors in producing social disorganization depends, then, on the state of the local culture. These factors would be far more important in causing social disturbances in preliterate society and in earlier times than in modern society. Modern transportation has banished famine from many lands. However, recent experiences in the United States with flood, dust storms, and drought suggest that these geographic factors are not to be slighted.

Maladaption of inherited nature to culture. Another cause of social disorganization is the lack of adaptation of man's inherited nature to the environment of group and culture, a subject to be discussed in the chapter which follows. Man's inherited nature changes via the germ plasm exceedingly slowly, while culture changes more rapidly. Group life implies co-operation and respect for the rights of others, yet the aggressive, acquisitive tendencies of man, so necessary for survival, are not readily accommodated to the restrictions imposed by the group. So man may steal or commit murder, and a strong bully may create considerable disorganization. Again, the culture of a group may make demands on original nature which it finds very difficult to meet. Such may be the

[1] J. F. K. HECKER, EPIDEMICS OF THE MIDDLE AGES (London: G. Woodfall and Son, 1844), p. 23.

situation when long hours of labor are required at monotonous repetitive tasks. As a result, industrial production may have periods of disorganization. This point was developed at length in the chapter on "Personality Disorganization," [1] where it was shown, for example, that the intense competitive spirit of modern American culture plays an important part in producing breakdowns in individuals who cannot stand the pace. In view of the extended treatment already given this factor and its place in the next chapter, there is no need to consider it further here.

EXEMPLIFICATION OF UNEQUAL RATES OF CHANGE AS A CAUSE OF SOCIAL DISORGANIZATION

It may be helpful to present in the remaining paragraphs a number of examples of social disorganization affected by unequal rates of cultural change. No comprehensive or detailed discussion will be undertaken, since these situations are treated more fully in books and courses on social problems. However, a brief consideration can be undertaken with a view to noting the degree to which they may or may not be the result of unequal rates of change in the different parts of culture.

In beginning, it is desirable to consider one more aspect of social disorganization a little more fully. The term is generally thought to have something of a moral connotation. A town that has saloons and gambling houses is regarded as having a disorganized social life, and one with churches and courts as organized. The association of gambling houses and saloons in western towns with disorganization arises, perhaps, from the fact that drunken miners and cowboys may shoot up the town and disorganize normal social life. But gambling houses may be well organized and integrated with the social life, as at the famous Casino of Monte Carlo, without representing any disorganization. The classification of all social phenomena that are thought to be evil as social disorganization is an unwarranted abuse of the term. Disorganization is a condition wherein the structure breaks down or does not function efficiently. When an old railroad station is being torn down and a new one constructed in its place, the service of the station is said to be disorganized.

Unemployment, one of the most serious of modern contemporary social problems, is evidence of social disorganization not so much because to be unemployed and without money is a tragedy, though it certainly is, but because large-scale unemployment reveals that the organiza-

[1] Chapter VIII.

tional adjustment between population and industry is not a good one. One type of unemployment today results clearly from unequal rates of change. New inventions take jobs away from men before new jobs are created. Also, much unemployment today is caused by business depressions, which arise because production moves faster than purchasing power. Unemployment, then, represents changes in business conditions which come more quickly than changes in population.

Business depression itself is a major expression of social disorganization. All business life is affected, and social and individual life as well, as in the postponement of marriages, the increase in suicides, and the reduction in the social services. What causes the business depression is not known with exactness, but it is generally agreed that it is due to a failure of buyers to purchase the goods produced at the prices quoted. Production grows faster than purchasing power. If the two forces were better synchronized, the number and intensity of depressions would be greatly reduced.

Poverty is often listed in books on social disorganization or social problems, sometimes on the theory that society does not function well if the inhabitants are poor or destitute. But that poverty is in part caused by unequal rates of change was argued by no less a figure than Malthus, who based his explanation on the fact that population increases according to an exponential law which is inevitably faster than the increase of the food supply, which grows by arithmetic progression. There are much fuller explanations of poverty, but many may be traced back to rates of increase of population. Variations in income due to fluctuations in business, and the very uneven distribution of income, are also causes of poverty.

Ill health is sometimes considered in relation to social disorganization. It is true that if many persons are sick, the work of the community does not go on so smoothly. As was pointed out above, ill health for the most part represents the failure of individuals to adjust to environment, and occurs in stationary as well as in changing societies. But even so, changes in civilization do increase or decrease disabilities. Most of the early plagues can be traced to the crowded, unsanitary conditions in the cities; and even in our own time new industrial activities have been attended by new occupational diseases. Automobiles cause numerous accidents and fatalities. On the other hand, chemical and physiological discoveries are reducing the incidence of certain diseases.

Crime, another major manifestation of social disorganization, is per-

haps due more to the failure of original nature to adapt to culture than to unequal rates of change. The aggressive selfish traits which were of survival value when man's ancestors lived in trees in the wild state, operate very badly in a world of property, and crimes of theft, robbery, larceny, and forgery result. Still, this adjustment between original nature and culture is affected by changing situations. For instance, the majority of crimes today occur in cities. Large aggregations of population due to the power inventions have come into existence faster than have moral and physical agencies of control. It will be very difficult ever to bring the agencies of control of crime to the point where there is as little crime in cities as in small rural communities. The greatest number of crimes today are crimes against property, which has increased most rapidly in modern civilization.

Race conflict. Sociological books on contemporary social problems usually deal also with race conflict. The difficulties races have in living together or in dealing with one another vary according to the situation and the peoples concerned. It may be noted at once that, in almost all cases, the contacts which bring out the friction are due to the transportation inventions which have thrown the races into close contact. Technology changes first and the adaptation of the races to these changes occurs much later. However, the rôle which transportation plays in forcing races into relations with each other is not a particularly helpful point in dealing with the problem. Other analyses may be more useful in affecting improvements, such as those dealing with the factors of ignorance, competition, and discrimination. Race prejudice is a matter of attitudes, which are often thought to be amenable to education, and the usual approach to the question concerns changing attitudes. The inventional factors, like modern transportation, that bring these race prejudices to the fore are not appreciated, because they are not easily changed and hence have little to do with improved adjustment.

Family disorganization. There can be some family disorganization in a stationary culture of a primitive people. A lazy husband may not provide enough food and clothing for his family, or the affectional bond between mates may be weakened or broken by the entrance of another contender. These problems are due to the difficulties of original nature in making a proper adjustment to the cultural requirements. In modern times this difficulty of adapting our biological nature is in evidence, but there is also family disorganization due to unequal rates of change in different parts of the social heritage. Prior to power machinery, the agri-

cultural family was bound together not only by affectional functions but also by others, such as the protective, educational, recreational, religious and especially the economic. Members tied together so closely by these bonds would not become disunited easily; divorce and desertion were relatively rare. But with the transfer of the economic functions to the factory and store, the others were also transferred in large part away from the family, excepting the affectional one and the education of little children. Family members are now held together largely by one tie only, the affectional one, which seems to be rather brittle. The obvious result is more divorce and more separation of mates. The new economic situation has changed the family, but adjustments in family ethics, education, and status have lagged, with resulting social maladjustments.

Labor problems. One final illustration from the field of sociology may be cited. Labor problems of modern industrial life are due to changes in technology and employers' organizations outdistancing changes in the organization of labor. Wage-earners have remained in their prior condition with no organization, or with types of unions not effective enough in collective bargaining and in the adjustment of disputes. There are, of course, exceptions and variations, but in general technology and the closely correlated financial organizations have moved forward very rapidly, while the laborers who handle the machines directly have not yet sufficiently changed their status to make a less unsatisfactory adjustment. The result is, at times, considerable disorganization in the field of industrial relations.

It is thus clear that many of our most important social problems can be traced to the unequal advance of different parts of our civilization. Sometimes this explanation is very useful in suggesting aspects of the problem that are subject to remedy, as in the case of family disorganization and the position of women. In other cases, for instance that of race conflict, unequal rates of change and lags are a part of the explanation but are not particularly illuminating as to remedies. However, the theory is valuable in showing that the foundation of much contemporary social disorganization lies in the irregular changes of our civilization.

SUMMARY

When the usual or normal functions of a mechanism are interrupted or impaired, it is said to be disorganized. Social disorganization refers to the disruption of the functions of some social unit such as a group, an institution, or a community. The appraisal of disorganization is in terms of the way the mechanism works; hence the existence of disorganization can be determined more or less objectively. On the contrary, quite subjective are such considerations as whether or not the organization itself is socially desirable and whether or not its disorganization is a bad thing. Matters such as these are determined by the consensus of group opinion.

This chapter has been devoted to considering the basic causes of social disorganization. One was shown to be the maladjustment of man and culture to the natural environment, particularly certain extraordinary manifestations such as epidemics, floods, and earthquakes. Another cause, developed in a previous chapter, is the lack of adjustment of man's inherited nature to the demands of group life and culture. The third major cause, treated fully in this chapter, was seen to be the stress caused in correlated parts of culture when they change at unequal rates of speed. Social disorganization thus results from conflict between the basic factors in human experience, that is, between geographical influences and culture, between heredity and culture, and between the various parts of culture.

The last mentioned cause of social disorganization has been stressed in this chapter because of its great significance for contemporary society. As was shown, the geographic cause is more prominent in the case of cultures less advanced than our own which are lacking in adequate controls. As for the biological factor as a cause of disorganization, it may be observed that the original nature of man may be poorly adjusted to culture even on the lower levels. Indeed, in the chapter on "Personality Disorganization" there was pointed out the difficulty of determining whether mental disorders are more common in modern society than in preliterate society. In any case there are individuals who find it difficult to adjust to the requirements of the group even on the primitive levels. The social disorganization produced by unequal rates of cultural change, however, is peculiarly a phenomenon of dynamic, modern society. In a stationary society, there is a more harmonious adjustment of the parts of culture, an

adjustment which has been worked out over a long period of time.

When culture begins to change, the modifications do not occur evenly in all parts of the social heritage. Some parts change faster than others. When the different parts are interrelated, the varying rates of change produce a strain between the unequally moving parts. The part that is moving at the slowest rate of speed constitutes the culture lag. Since the other part of culture has already changed, as a rule the most practicable method of effecting a better integration between the two parts is to make some adjustment in the part that is lagging. Modern technology is changing at a rapid rate and creating important social changes, with which our social institutions have not yet caught up. Analysis of important modern social problems, such as unemployment, poverty, and family disorganization, shows that much of our contemporary social disorganization issues from the irregular changes of our culture.

QUESTIONS FOR DISCUSSION

1. How do standards of right and wrong in a relatively stationary society differ from those in our own society today? Why?
2. What effect does the present situation of rapid social change have on the selection of a career?
3. Are women now as well adjusted to the home as they were several centuries ago? What criteria are you applying? Do these represent the values of most people in our culture?
4. What is meant by the theory of cultural lag? How is culture lag a cause of social disorganization?
5. Is a society like that of the Eskimo more highly integrated and harmonious than ours?
6. Since the automobile kills more people every year than even the most deadly microbe, would it be possible to abandon the automobile? Why?
7. What examples, if any, can be cited of social changes or innovations which man might more easily or advantageously abandon than make adjustments to?
8. What adjustments have yet to be made to the airplane?
9. In what field today are culture lags most prominent in our society? Why?

10. Is ill health chiefly due to cultural maladjustments or to the maladjustment of the human organism and nature?
11. How are modern labor problems due in part to unequal rates of change in culture?

TOPICS FOR REPORTS

1. Goals and ideals in modern American society compared with those in a particular preliterate society.
2. The identification of the individual with his society on the preliterate level.
3. Cultural lags in the field of modern education.
4. Criticism of the culture lag hypothesis.
5. The Black Death as a cause of social disorganization in the fourteenth century.
6. The concept of social disorganization.
7. A case study of a disorganized community or neighborhood.
8. Indices of social disorganization.

SELECTED READINGS

CHAPIN, F. STUART, CULTURAL CHANGE. Chapter X, "CULTURAL LAG IN THE FAMILY."

Gives an excellent account of the lack of adjustment of the family to modern industry which has moved forward more rapidly than has the reorganization of family life.

"COMMITTEE FINDINGS," RECENT SOCIAL TRENDS.

ELLIOTT, M. A., and F. E. MERRILL, SOCIAL DISORGANIZATION. New York: Harper and Brothers, 1934.

Excellent for detailed treatment of specific social problems. Other books of this same general nature are: JOHN L. GILLIN, SOCIAL PATHOLOGY. Revised Edition. New York: D. Appleton-Century Company, 1939. H. PHELPS, CONTEMPORARY SOCIAL PROBLEMS. Revised edition.

New York: Prentice-Hall, 1938. S. A. QUEEN, N. B. BODENHAFER, and E. B. HARPER, SOCIAL ORGANIZATION AND DISORGANIZATION. New York: The Thomas Y. Crowell Company, 1935. J. M. GILLETTE and J. M. REINHARDT, CURRENT SOCIAL PROBLEMS. New York: American Book Company.

MACKENZIE, FINDLAY, editor, PLANNED SOCIETY, YESTERDAY, TODAY, TOMORROW. New York: Prentice-Hall, 1937.

Parts III and IV contain a series of articles by different authors all of which indicate methods of dealing with culture in motion. For proper interpretation, should be seen against the background of the thesis of this chapter.

MOWRER, E. R., FAMILY DISORGANIZATION. Chicago: University of Chicago Press, 1927.

This book is a standard reference study made a number of years ago, but still good on the disorganization that occurs in family life, although no particular attempt is made to tie it in with any theory of cultural change.

MUELLER, JOHN H., "THE PRESENT STATUS OF THE CULTURAL LAG HYPOTHESIS," AMERICAN SOCIOLOGICAL REVIEW, 3:320–27, June, 1938.

Develops the concept of the correlation between two moving variables, and proposes a lag interpretation that does not depend on ethical values.

OGBURN, WILLIAM F., SOCIAL CHANGE. Part IV.

STEINER, JESSE F., THE AMERICAN COMMUNITY IN ACTION.

Case studies of social organization and disorganization in various communities. A rich source of material on community life.

STEINER, JESSE F., "COMMUNITY DISORGANIZATION," JOURNAL OF SOCIAL FORCES, 2:177–87, January, 1924.

An early and excellent survey of the causes and effects of community disorganization. The author stresses the effect of disorganization on demoralization and shows the problem of the community in terms of a better defined organization.

THOMAS, WILLIAM I., and FLORIAN ZNANIECKI, THE POLISH PEASANT IN EUROPE AND AMERICA. See especially vol. II, chapter I.

This famous work on the problems of adjustment of the Polish immigrant to American culture contains a wealth of illustra-

tions of the cultural background of the immigrant and his new environment.

WALLIS, WILSON D., AN INTRODUCTION TO SOCIOLOGY. New York: Alfred A. Knopf, 1927.

The author has an interesting theory which he calls the drive and drag of social life. The drive oftentimes overreaches itself and brings about a situation that is a drag on the total society. This theory is a special case of unequal rates of change. See especially chapter 34.

WOODWARD, JAMES W., "A NEW CLASSIFICATION OF CULTURE AND A RESTATEMENT OF THE CULTURAL LAG THEORY," AMERICAN SOCIOLOGICAL REVIEW, 1:89–102, February, 1936.

This article warns against the too facile use of the theory of cultural lag in dealing with contemporary social problems and raises the important point of the definition of maladjustment.

XXVIII. THE ADJUSTMENT OF MAN AND CULTURE

THERE IS A GREAT DEAL of confusion in modern life, as was indicated in the previous chapter. When changes are fast and numerous as they are today, the scene to many is one of bewilderment, not unlike the scene, to a child, of a circus pulling up stakes, the animals, performers, and workmen coming and going and making a lot of noise and dust, seemingly without much of a plan. The circus does, of course, proceed according to a plan, but what of human society? Does society go forward according to divine plan? It is a profound question. There are, to be sure, certain forces at work in human life. As was shown in the opening chapter, heredity, the group, and culture, operating against the slowly changing background of natural environment, not only affect the personality and social experience of man, but direct the onward march of civilization. But is there any special direction in which the process is tending? The attempts to answer this question have posited the concept of progress.

Social Progress

THE IDEA OF PROGRESS

The history of the United States is supposed to be one of progress We have advanced from the crude settlement of pioneers living on the edge of the wilderness to a vast and rich nation with a great expanding culture. "Bigger and better" are familiar terms in our society. Man himself has evolved from lower orders to his high estate. The American student of today takes progress for granted. It seems inevitable.

This interpretation may, however, be questioned. The clearing of the wilderness has brought farms where there were once wild beasts, but it has also brought more floods and more destruction of the soil. We are now a richer country than we were a hundred years ago, but is the acquisition of wealth progress? Jesus Christ inveighed against the rich of his day. We move about the earth in faster time, but does the motion bring more happiness or health or comfort or peace of mind? If our greater

number of laws is accompanied by more crime, is that progress? Visitors from the older civilizations of the Orient or the lesser civilizations of outlying regions marvel at our material achievement, but often question whether it represents progress. The government is extending its activities so rapidly that it has become a huge and complex organization, difficult for the ordinary voter to comprehend. Democrats and laissez-fairists question whether such a development of the state is progress. Socialists say it is a movement in the right direction. There is much difference of opinion about what progress is.[1]

Evolution versus *progress.* These comments make clear the advisability of differentiating between evolution and progress. Evolution is merely change in a given direction.[2] When we speak of biological evolution we refer to the emergence of certain organisms from others in a sort of succession. In the case of cultural evolution, as was seen in earlier chapters, every new invention has a history; that is, it grows out of, and is dependent upon, certain previous inventions. Evolution describes a series of related changes in a system of some kind. The reference is to an objective condition which is not evaluated as good or bad. Progress, on the contrary, means change for the better. The adjective, better, implies clearly a value judgment.

THE SUBJECTIVITY OF VALUES

It is not possible to speak of progress without reference to standards, and standards are eminently subjective. For value, like taste, there is no measuring stick. *De gustibus non disputandum est.* A particular change in culture may seem, to one person, to be progress; to another, retrogression, because they have different values. The growth of large-scale business is regarded by Rexford G. Tugwell[3] as a forward step that makes economic planning and control more nearly possible. To Justice Louis D. Brandeis[4] big business is a curse and a step backward. The change itself is an objective fact, but the two observers whose values differ attach different significance to it.

Progress in technology. In the case of technology it can be said with-

[1] WILSON WALLIS, CULTURE AND PROGRESS.

[2] LEONARD T. HOBHOUSE, SOCIAL EVOLUTION AND POLITICAL THEORY, chap. VII.

[3] REXFORD G. TUGWELL, THE INDUSTRIAL DISCIPLINE AND THE GOVERNMENTAL ARTS (New York: Columbia University Press, 1933), chap. VIII, "GOVERNMENT AND INDUSTRY," pp. 187–221.

[4] ALFRED LIEF, THE SOCIAL AND ECONOMIC VIEWS OF MR. JUSTICE BRANDEIS (New York: Vanguard Press, 1930).

out contradiction that there has been progress from the age of the stone club to the age of steel alloys and of mechanical power.[1] What is meant here, however, is not a moral evaluation, but simply a description of the fact that tools have become more varied and efficient. But whether our technological age, all things considered, is better than a more simple life with simple tools is a question of evaluation about which there is no agreement. The reason that we may so confidently say that there has been progress in tool-making is that tools are judged by a function that can be measured such as, let us say, cutting. There is nothing subjective about our evaluation of the efficiency of this process. If, however, our judgment passes to an appraisal of the influence of tools on society in regard to some special effect that cannot be measured, as for instance on the sum of human happiness, a definite conclusion cannot be reached. Similarly, Tugwell and Brandeis might come to agreement on the "progress" of big business if they could single out some one trait, such as production, and measure it. But they are thinking of various non-measurable social effects, each emphasizing some special but different aspects, and assigning different values to them.

Can one hundred million people be wrong? The agreement of many persons on a value does not determine the issue. When large numbers of individuals have values, individual differences tend to be ironed out and the consensus of opinion comes to have greater weight than any one individual's opinion. Majorities determine elections and verdicts of juries. Consensus, however, is open to the same subjective influences and rationalizations as an individual's values. The persecution of witches was once held to be desirable and was in line with progress according to the general opinion of the time. The burning or hanging of witches today would not be deemed progress. Capital punishment for stealing cattle was thought to be a progressive step in early California, but it is not so held in that state today. Capital punishment for murder is valued as good practice in the United States now, but it may not be in the future. Consensus of opinion is inconstant.[2] This point was developed more fully in an earlier chapter,[3] where it was shown that nearly every value we cherish today has been condemned by some other people or at some other time, and that those we condemn today have been highly praised by others.

[1] HORNELL HART, THE TECHNIQUE OF SOCIAL PROGRESS, p. 53 ff., "A QUANTITATIVE INDEX OF PROGRESS IN TOOLS"; also, chap. IV, "TECHNOLOGICAL PROGRESS."

[2] WILSON D. WALLIS, CULTURE AND PROGRESS.

[3] Chapter II, "THE RÔLE OF CULTURE."

The question of universal values. It may be asked: Are there not some values that have been held good in all cultures at all times? While no one has ever taken a census to find out, it would be possible to go through the histories and the ethnological monographs in search of values that are common to the peoples whose cultures have been recorded. If this were done, the findings would no doubt have to be stated in very abstract terms.[1] "Thou shalt not steal" is a commandment common to many cultures. Yet, when the abstract term, stealing, is applied to concrete situations, the guidance of the generalized commandment is not very helpful. The Blackfoot Indians praised stealing from the enemy, as have many other peoples. Slaves often steal from their masters and among themselves the practice may not be held bad. The same comments may be made upon the commandment, "Thou shalt not kill." War and legal hanging are both considered necessary at times, and each results in loss of life. Again, the goals of progress are sometimes stated in such abstract form as the attainment of "the greatest good or the greatest happiness for the greatest number." But even though such desiderata be held in many cultures over a long period of time, they indicate neither what actions are to be taken to secure these ends, nor when these ends are attained. Conceptions of happiness differ as do ideas of what is good for a people. In a word, while it may be possible to formulate conceptions of progress or valuations of change which apply to all time, the statements are too general to afford definite and sure guidance in specific situations at different times and in different cultures. The general goal of "true social co-operation" has been posited by Hobhouse [2] as a basis for determining progress. As another illustration, C. M. Case [3] has argued for the criteria of utilization, equalization, and appreciation. While such general principles do not afford specific guidance, they nevertheless serve as tools to be used in thinking out the course of action we wish to pursue.[4] Conceptions of progress, like general ethical principles, are of great value.

Tests of group welfare. There have been various recent attempts to formulate more specific tests of group welfare, such as longevity, mental health, amount of leisure time.[5] But it would be a mistake to think that

[1] JOHN DEWEY and JAMES H. TUFTS, ETHICS (New York: Henry Holt and Company, 1908).

[2] See L. T. HOBHOUSE, SOCIAL EVOLUTION AND POLITICAL THEORY, pp. 152–53.

[3] C. M. CASE, SOCIAL PROCESS AND HUMAN PROGRESS, chap. IV.

[4] DEWEY and TUFTS, *op. cit.*

[5] Cf. HORNELL HART, THE TECHNIQUE OF SOCIAL PROGRESS; also J. K. FOLSOM, CULTURE AND SOCIAL PROGRESS (New York: Longmans, Green and Company, 1929), chap. V, "A PROPOSED BAROMETER OF WELFARE."

these values have universal acceptance. For instance, our own society places a high value on longevity, and great efforts are made to extend the length of life. This is not so true, however, in societies where suicide is institutionalized, as in the East Indian practice of suttee. If a people believes there is a happier land to which to go after death, under certain circumstances death may be preferred to continued existence on earth. Much the same observation may be made concerning mental disorders. As was shown in a previous chapter, the psychotic individuals in some societies are esteemed rather than pitied.[1]

Progress as movement toward a definite objective. It might seem to the student that the preceding paragraphs have analyzed progress away. But such is not the case. For most persons there is such a thing as progress. It is a movement toward an objective, thought to be desirable by the general group, for the visible future. Thus, in our society the abolition of child labor is deemed a step in the direction of progress. Though there may be some individuals who do not think so, general opinion holds that it is desirable to keep young children from working in factories.

When considering social progress, it is well to note the time and place qualifications. The abolition of child labor is an objective for our society in the present and near future. This aim may not be desirable in other cultures, and we do not know whether it would be what we would want a thousand years hence. If we look too far away we have trouble with the idea of progress. Child labor among the Bantu may be quite different from child labor in cotton mills in the United States. Likewise if we look too far ahead we are confused. It is undoubtedly desirable to look some distance into the future, but man cannot see many things very far ahead; he cannot see light with wave lengths shorter than those of ultraviolet, nor can the average person hear sounds of greater speed than twenty thousand vibrations per second. Why should man build for a trillion years hence? Who knows what conditions will be then? Kaempffert[2] has described them as follows:

> Jeans has calculated that we are spiraling from the sun at the rate of little more than a yard a century. In 1,000,000,000,000 years we shall be 10,153,000,000 instead of 92,300,000 miles away.... The terrestrial temperature will be 54 degrees Fahrenheit lower than it is now, and the earth will be reduced to an icy ball swimming through space. If they

[1] Chapter XXI.

[2] WALDEMAR KAEMPFFERT, SCIENCE TODAY AND TOMORROW (New York: The Viking Press), pp. 39–40. Copyright, 1939, by Waldemar Kaempffert. By permission of The Viking Press, Inc., New York.

> have not evaporated long before then the oceans will be frozen masses. The curtain falls when the atmosphere is precipitated first in blizzards of carbon dioxide and finally in a downpour of liquid air. No inventive genius can stave off death. After having stumbled into a universe that was never destined for life, man will be blotted out by forces that were hostile to him from the beginning of time and over which he triumphed for a brief hour.

But even if the sun should explode, as many stars have done, and destroy the earth in the distant future, that is no reason why we should not here and now prevent little children from growing up pale, anemic, and weak-boned in the shadow of sunless tenements. Even though the intellectuals split hairs in argument over whether the concept of the "greatest good for the greatest number" as a goal of progress is valid because it does not conform to a normal probability curve, why should we allow one person to go insane every seven minutes? [1] Even though we cannot find a definition of progress that fits all societies at all times, why can we not remedy the present-day conditions that mean ten million sufferers from syphilis? [2] Even though we may not all agree on what social adjustment is, may not some of us work to prevent another war like that of 1914–18, which resulted in more than thirty-five million casualties; [3] or like the one which began in 1939, whose final cost will not be known for years?

Social Control and Planning

THE TASK OF DIRECTING SOCIAL CHANGE.

The analysis to this point has shown the subjectivity and variability of goals, and the difficulty of determining whether complex social changes are in the nature of progress.[4] Because values are subjective, many social scientists dismiss them summarily and give them no consideration whatsoever. This is an attitude apparently appropriated from the natural scientists, who deal with things that do not possess values. In the case of human beings, however, it must be recognized that all groups

[1] Bureau of Census, PATIENTS IN HOSPITALS FOR MENTAL DISEASE, 1937 (Washington: Government Printing Office, 1939), p. 13, gives the number of first admissions in 1937 as 78,217.

[2] S. W. Becker, TEN MILLION AMERICANS HAVE IT (Philadelphia: J. B. Lippincott Company, 1937), p. 9.

[3] WORLD ALMANAC, 1935, p. 944.

[4] See A. J. Todd, THEORIES OF SOCIAL PROGRESS (New York: The Macmillan Company, 1918), especially chap. VII, "CRITERIA OF PROGRESS."

set up values which are of the greatest significance for social life. The fact that consensus is subjective does not mean it is insignificant; quite the contrary, it influences human experience profoundly at many points. While it is probably not for the sociologist as a scientist to set up values, it is quite within the province of the sociologist as a human being to have values and to work for them. It is also important for him to recognize the values which are set up by the consensus of groups. Human values are, to the scientist, a system of data to be considered objectively like all other phenomena.

Since there is a consensus of opinion on goals in every society, the questions arise: In terms of his own goals, what can man achieve? What goals can he attain? What control can actually be exercised? We have learned to control quite effectively the disposal of garbage, the burning of buildings, the pollution of the water supply. The activities of a modern city reflect an enormous amount of control. Much has been done to control the plagues that once worked such havoc. Man has overcome the forces of gravitation to fly through the air. The limitations of space he has transcended also, to the extent that he can converse across oceans. He has been able to dam up the mighty forces of rivers and to make the desert bloom. Yet man has not been able to control crime as he wants to do. The divorce rate is mounting, and the rate of insanity may be increasing too. It is clear that, while there is some control in human affairs, there are practical limits to the extent of control. The fact that we can control the disposition of garbage does not justify us in thinking we can control evolution. Important, then, is the inquiry to which we turn, a consideration of the measure of control man now possesses.

LEADERSHIP AND CONTROL

Before taking up the discussion of man's control of social change, it is desirable first to make certain observations concerning leadership which may throw some light on the problem in hand, for control is generally effected by or through leaders. It is common knowledge that a social program may suffer because of poor leadership. It is frequently stated that the labor movement in the United States has been retarded in the past by lack of strong leadership. A strong leader may be able to achieve a great deal. The history of many a college shows a period of particularly great prestige which is usually associated with the administration of an outstanding leader.

Limitations of leaders. While the power of the leader is generally appreciated, there is insufficient recognition of his limitations. It is most important in dealing realistically with progress and leadership to dismiss once for all the current fantasies and daydreams so widely prevalent. We tend to overestimate the originality, initiative, and even ability, of the leader. We are much inclined to hero-worshiping, a trait that may have been inculcated in us as children in admiration of, and affection for, our parents and elders who could do so much that we could not. Once this pattern of reaction has been set up in our personality, the leader simply becomes a conditioned stimulus in the place of the parent.[1] Furthermore, it is to the advantage of leaders to encourage the attitude of hero-worship on the part of their followers. It is natural that leaders should claim victories. Presidents of the United States have often taken credit for prosperity when it was due to favorable rainfall in the wheat and corn belts or to the discovery of gold mines. It is natural, therefore, that presidents are blamed for business depressions, which they also play little part in making.

It is naïve to imagine that leaders initiate plans *de novo*, especially in a country like the United States where so many pressure groups exist. In any case, as was pointed out in an earlier discussion of inventions, the leader is limited in what he can do; he is limited by his materials, by his knowledge, by the social attitudes of the group.[2] The German Emperor Frederick II, a great man with a forceful personality and an able mind, was perhaps the most enlightened ruler of the Middle Ages. He was modern in outlook and ideas. But he dashed himself to pieces by opposing the Papacy, for the mores of his time were ecclesiastical and hierocratic, and the people could not conceive of a state being "good" if it was not in complete harmony with the prevailing Church.[3] Similarly, a leader in the United States in the nineteen-thirties could not prohibit the sale of liquor throughout the nation, nor could he permit unlimited immigration. If a leader tries too many undertakings that fail, he becomes ineffective and is deposed. Even dictators have their great power only in theory. In practice they are by no means free to act as they please. They also have advisers and in a culture with a high development of the communication inventions they respond to pressure. From

[1] WILLIAM F. OGBURN, "THE GREAT MAN VERSUS SOCIAL FORCES," JOURNAL OF SOCIAL FORCES, 5:225–31, December, 1926.

[2] Chapter XXV.

[3] For other examples of great leaders who suffered defeat by opposing the mores of their time, see WILLIAM GRAHAM SUMNER, FOLKWAYS (Boston: Ginn and Company, 1906), pp. 87–88.

this it may be inferred that a good leader is one who knows also how to follow.

While the popular view is that the leader makes the times, a realistic view emphasizes the exact opposite. There is some reciprocal action, but it is interesting to note that leaders have a way of arising in times of crisis. A general could hardly be a great man without a war. Presidents of the United States during wars tend to be great, for they then have more opportunity for great achievements. It is difficult for a president to be a great man unless some great crisis occurs in his administration. These remarks in no sense deny leadership. They are intended merely to provide a realistic conception of the leader in an attempt to find out what can be done to control social change, in contrast to the story-book conception of great men. Leadership is necessary in any directing of social change, but it is also very definitely limited by the determinism of social forces.[1]

THE REALISTIC APPROACH TO CONTROL

Despite the limitations of leadership, and the difficulty of deciding on goals, societies do undertake to control change. We now turn our attention, therefore, to a consideration of man's power to control his destiny. Here again, it is necessary to differentiate between what is fantastic and what is practical. We may wish to build a bridge across the Atlantic Ocean from New York to Liverpool, but such a wish is the stuff of which dreams are made. We are familiar enough with engineering to realize that it is not practical at the present time. But somehow in the realm of social progress we have our daydreaming and social engineering all mixed up. We may wish to abolish war or birth control. What seems simple for the person appears likewise easy for society. But such tasks are as difficult as building a bridge across the Atlantic. Many still believe in miracles in the social world, though the idea has been abandoned in medicine and physiology. Some day war and birth control may be abolished; but, if so, the task will have to be approached with full consideration of materials, ways and means; that is, it will be achieved, not by the mere magic of wish fulfillment, but by the techniques of social engineering.

Since the world is governed by social forces, and not by mysterious leadership, a practical rule is to try to figure out first what is likely to

[1] "The leader is a cause, but, like all causes we know of, he is also an effect." CHARLES HORTON COOLEY, HUMAN NATURE AND THE SOCIAL ORDER (New York: Charles Scribner's Sons, 1922), p. 357.

happen as a result of the social forces. Do the social forces favor or oppose the proposed change? This question, if properly envisioned, takes the issue out of the world of fantasy and puts it into the world of reality. After this question has been answered to the best of our knowledge, then and then only is it good practice to ask another question. What can we do about it? To ask what can be done to bend the direction of the social trend is a more realistic approach than to start with the idea that we can do anything we want to do, if only we have enough faith and will. We proceed to ask what is likely to happen in our changing world, with reference to the three factors, natural environment, biological heredity, and culture.

Problem of man's control over natural environment. The measure of man's control over the natural environment was set forth in an earlier chapter,[1] hence need not here be considered at length. Man has achieved some remarkable controls, such as the creation of artificial climate in houses. The natural environment itself has been altered by such things, among others, as deforestation and reforestation, the filling-in of swamps, and the diverting of rivers into new channels. In other cases, more numerous perhaps, man has not controlled natural environment but only its effects. This has been accomplished by such inventions as clothing, the umbrella, housing, and air-conditioning. The darkness of night is offset by artificial light for automobiles, for ships, for airplanes, and for outdoor games. The natural environment remains essentially unchanged, but its significance for man is not the same since he has various inventions such as those just mentioned. It may be concluded that "man has broken down some geographical difficulties . . . improved the bearing of other conditions, and settled down to the endurance of still others." [2]

Fortunately there is no great need to control the larger aspects of the natural environment. For climate and the earth's surface, the course of change is negligible over short periods of time. It scarcely seems possible that man could control any great change along these lines; he could not, for example, prevent the onset of another ice age if it were to come. Fortunately no such occurrence is indicated for the near future.

Problem of control over biological man. Human heredity is likewise relatively stable. For a whole people, biological selection is measured in

[1] Chapter IV.

[2] ISAIAH BOWMAN, GEOGRAPHY IN RELATION TO THE SOCIAL SCIENCES (New York: Charles Scribner's Sons, 1934), p. 118.

hundreds of years, and mutations perhaps in thousands. There has probably been no significant biological change in man's hereditary endowment for perhaps ten thousand years or longer.[1] The creation of mutation by X-ray recently in the fruit fly is not specific, and results in defective genes; it is of no value at present for the purpose under consideration. Heredity is the great stabilizing force. The facts, then, give no encouragement to man's dream of evolving soon into a superman, a dream which so intrigues romantic minds like those of H. G. Wells and George Bernard Shaw. On the other hand, it is comforting to think that the possibilities of degeneration are also remote.[2]

While the course of change in biological man may be modified over long periods of time, the likelihood of modification in the immediate future is not great. While our knowledge of the laws of heredity has advanced remarkably within the past twenty-five years, our ignorance of the genes possessed by different family lines is still great. Biological stocks have risen and fallen in the past, but the selection was not consciously planned or executed by man. It would seem that the best prospect for eugenics in the near future is the denial of offspring to persons obviously carrying certain defective genes. As was pointed out in another place,[3] this type of negative eugenics may prevent to a small extent the appearance of defectives, but the achievement will not be great because most defective genes are recessive and it cannot be told in advance whether an individual carries them or not. It is well to bear in mind, however, that research in genetics during the next hundred years or so may radically alter the eugenics program as it exists today.

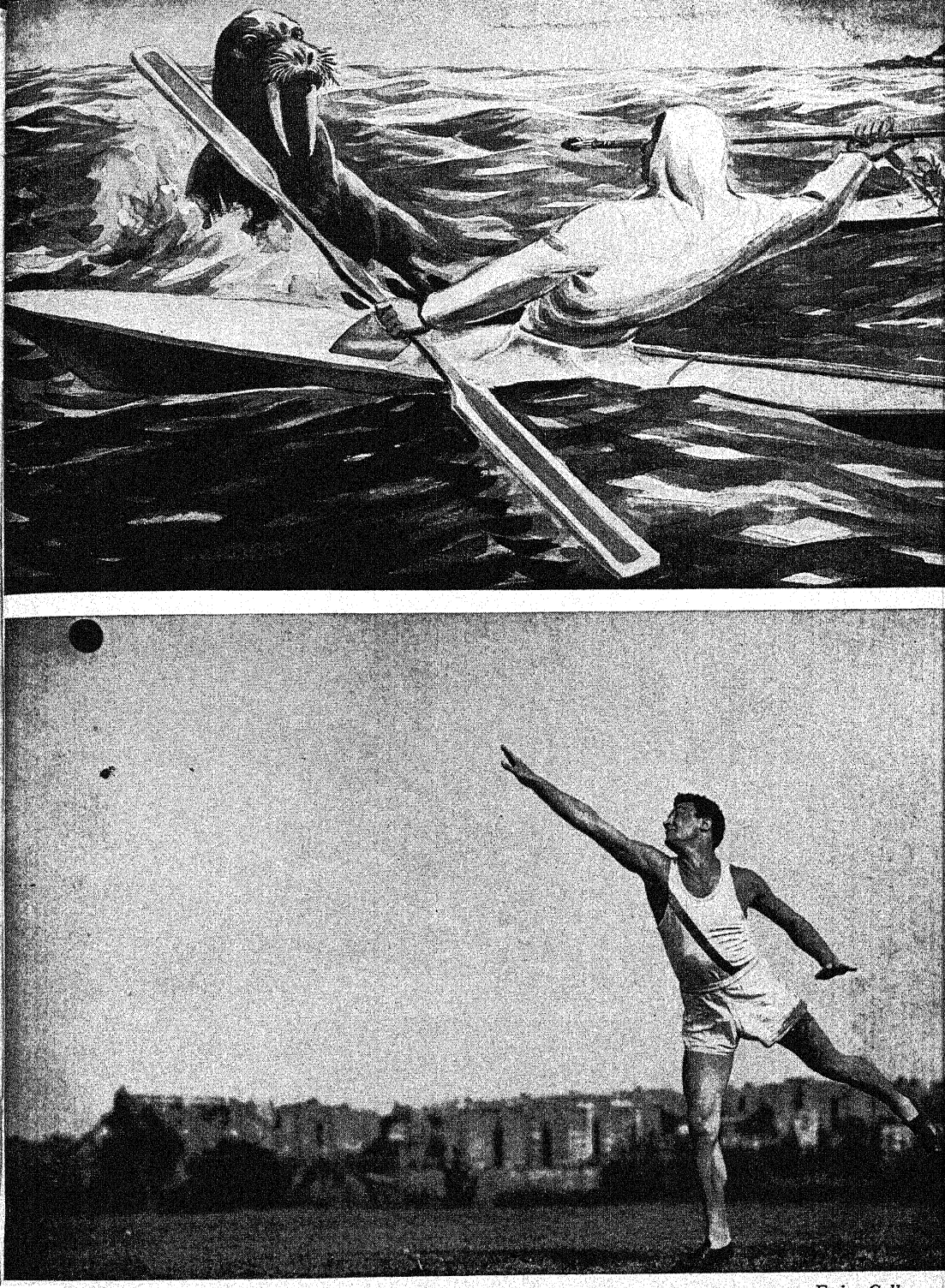
Even if the knowledge requisite for changing biological heredity were available, there would still remain the problem of control. Man has so far not viewed the eugenics program with favor, as judged by achievements. The program has met indifference or actual hostility. The sterilization program, for instance, has on the whole failed to win popular support, though during the past five or ten years an average of about thirteen hundred persons in our state institutions for the insane and criminal have been sterilized.[4] It has been repugnant to a people who

[1] EDWIN GRANT CONKLIN, THE DIRECTION OF HUMAN EVOLUTION (New York: Charles Scribner's Sons, 1921), p. 59: "There can be no doubt that human evolution has halted, either temporarily or permanently..."

[2] See HERBERT S. JENNINGS, THE BIOLOGICAL BASIS OF HUMAN NATURE (New York: W. W. Norton Company, 1930), chap. X, "WHAT CAN WE HOPE FROM EUGENICS?"

[3] Chapter III.

[4] Committee of the American Neurological Association, EUGENICAL STERILIZATION (New York: The Macmillan Company, 1936), pp. 8–20.



Ewing Galloway

PLATE 18. ADJUSTMENT OF CULTURE TO THE BIOLOGICAL NATURE OF MAN



Keystone

PLATE 19. PLAN OF THE FUTURE CITY, AS PROJECTED AT THE NEW YORK WORLD'S FAIR

The design of the City of Tomorrow is based in large part on the automobile and the airplane. This city plan is a symbol of what is needed in all phases of our changing culture. Technological changes precipitate the new conditions and are the best basis for making plans. The alternative of planning is drifting into more cultural lags.

love liberty and who hold to a social philosophy of laissez-faire. Even less cordial has been the popular attitude toward suggestions of bettering the stock through selective mating. It will be necessary to develop a different consensus on the part of the group if eugenics is to prosper. Such a new attitude is, of course, not impossible.

The prospect is much better of improving individuals biologically during their lifetime. This program does not involve the manipulation of the factors of heredity. Also, the process must be repeated in the case of each generation. The program calls for improving the environment in which the body grows. As was shown earlier, the control of disease, especially during the early years of childhood, has already led to an improved human constitution. Superior feeding, due to the knowledge about vitamins and minerals, has also contributed to this end.[1] Further gains along these lines may be anticipated. There is always the prospect also that fuller knowledge of the hormones will bring improved structure. Quite marvelous achievements have been made among the lower animals by dealing with the endocrine glands and the vitamin content of the diet. Striking character changes have been demonstrated in brown leghorn chickens by removing the ovary of a female chick two or three days after hatching. It grows up as a typical cock in head furnishings — combs and wattles — and has a typical cock plumage.[2] Young rats have been brought to maturity in the course of three to four days' treatment with fresh pituitary gland tissue.[3] Likewise old age has been brought on prematurely by giving rats a diet deficient in the filtrate of vitamin B.[4] Though these things have been done in the process of growth of animals in the experimental laboratory, such achievements seem to be quite impractical now for the growth of man. But he would be rash indeed who said that none of these seemingly miraculous changes would be made in man some time in the future. It may be concluded that, at the moment, the process of growth of the individual holds better prospects for human improvement than does the process of heredity in breeding.

[1] For further discussion of these points the student is referred to E. V. McCollum *et al.*, THE NEWER KNOWLEDGE OF NUTRITION, fifth edition (New York: The Macmillan Company, 1939), chap. XXVIII, "DIET IN RELATION TO HEALTHFUL LONGEVITY."

[2] L. V. Domm, "NEW EXPERIMENTS ON OVARIOTOMY AND THE PROBLEM OF SEX INVERSION IN THE FOWL," JOURNAL OF EXPERIMENTAL ZOOLOGY, 48:31, 1927.

[3] P. E. Smith and Earl T. Engle, "EXPERIMENTAL EVIDENCE REGARDING THE RÔLE OF THE ANTERIOR PITUITARY IN THE DEVELOPMENT AND REGULATION OF THE GENITAL SYSTEM," AMERICAN JOURNAL OF ANATOMY, 40:159, 1927.

[4] Agnes Fay Morgan and Helen Davison Simms, "ADRENAL ATROPHY AND SENESCENCE PRODUCED BY A VITAMIN DEFICIENCY," SCIENCE, 89 (2320):565–66, June 16, 1939.

Problem of control over culture. We come now to the realm of the superorganic, where changes have been occurring most rapidly. These changes have taken place, not through changes in man's biological nature, but through the addition of inventions, both mechanical and social. These have become numerous and frequent in modern times because of the accumulative nature of the superorganic.

Is it possible to control inventions? Raymond Fosdick [1] raises an even graver question. He asks, "Can the old savage be trusted with the tools which he has created?" It certainly does not seem practicable for man to control his inventions on a large scale, although certain individual, major elements may be regulated. It is conceivable that the introduction of the mechanical cotton-picker might be controlled,[2] or even the inception of a war. But would it have been possible to control the effects of the invention of the steam engine, which created cities and influenced family life, business, government, and religion so profoundly? Certainly not. Can the Orient stop the importation of western culture? Is China free to import or not to import the mechanical inventions and social systems of the western world, as it is sometimes claimed? These questions suggest the magnitude of the task.

Inventions and scientific discoveries are held in favor by the population and hence their stoppage would be difficult; the control of invention, by the way, is generally interpreted as meaning their promotion not their denial. Inventions are stimulated by demand for them. Increased demand brings results through improved organization of research. Of course, before an invention can be made, the elements underlying it must first be in existence. No amount of demand for the steamboat in 1600 would have produced it, because the steam engine had to come first. But considering our present great accumulation of knowledge, the chances are good that many inventions will be produced if the demand for them is strong enough. The drinking fountain could have been produced at any time after plumbing was developed, but it was delayed until the germ theory of disease became common knowledge and created a demand for a more sanitary public drinking apparatus. With the resources of a wealthy civilization supporting the strong demand for a cure for cancer, it is likely that the disease will be brought increasingly under control. These observations show how difficult it is to speed or slow up inventing.

[1] RAYMOND D. FOSDICK, THE OLD SAVAGE IN THE NEW CIVILIZATION, p. vi.

[2] The Rust brothers, inventors of the machine, propose to lease it only to persons agreeing to specified conditions regarding minimum wages, maximum hours, child labor, and displacement of labor.

For all this, it is to be noted that the production of more useful inventions, social or mechanical, or the crushing out of harmful ones, does not represent complete control over the superorganic. The reason is that inventions not only have immediate uses; they also have effects throughout the superorganic. The two conditions are different and must be kept distinct.[1] The stimulus that leads a man to produce a useful invention is its immediate use. He wants to make more yards of cloth with a new weaving machine run by steam. He does not realize it will have the social effect of increasing divorces. The problem of the control of social change resolves itself largely into the problem of the control of the effects of inventions.

Before these social effects can be controlled, they must first be anticipated.[2] We are far from showing such foresight in our present civilization. Social effects are generally not only not anticipated; they are not recognized even when they come, and they are heeded too late. The automobile had an effect on another type of transportation, the railroad, but the effect was not appreciated in time by the owners of certain railroads, who soon found themselves bankrupt.

The process of change is one in which the invention comes before we anticipate its social effects. Instead of controlling invention, invention is cracking the whip to make us hurry to adjust to the effects it creates. It is as though we were always running to try to catch the technological train. This is the situation which has led to the proposal that a moratorium be declared on invention and scientific discovery until the social institutions of man catch up. Even if such a thing could be done, the inventions already in existence would probably continue to exert social influences for centuries to come.

This discussion has so far been concerned with the possible control of mechanical inventions and their social effects. The same analysis holds for the control of social inventions and their influences on society. It was difficult to foresee a recent social invention, the totalitarian state, exemplified by Fascist Italy. This invention is certainly difficult to control. Once in operation, the effects of the totalitarian state on personality and behavior, on customs and manner of life, are impossible to control. Again, if we cannot control war, how can we expect to control

[1] For fuller discussion of the distinction between the immediate uses of an invention and its social effects, both direct and derivative, see Chapter XXVI.

[2] National Resources Committee, TECHNOLOGICAL TRENDS AND NATIONAL POLICY (Washington: Government Printing Office, 1937).

all its many social effects? So, too, the business depression cannot as yet be prevented, nor can we control the social effects of the business cycle. Indeed, we do not even know as yet what all of the effects are, although we have experienced some very severe depressions. The prediction of the social effects of social inventions is, then, as difficult as in the case of mechanical inventions.

No doubt this problem of predicting effects of inventions, like other problems, would yield results if it were studied more. But few scientists are seriously trying to find what will be the future effects of the new technologies; instead we spend much time in analyzing past history, which does not repeat itself in an age of change. The human race is like the passengers in a bus with seats turned so that they always look backward. The driver too looks backward while the bus hurtles ahead across the open country through the mist at terrific speed. It is preposterous to talk seriously about controlling social change when so few are looking ahead for the derivative influences of inventions.

THE ADJUSTMENTS AT POINTS OF STRAIN

It should be clear from the foregoing discussion that to boast about controlling social evolution and directing the course of progress is much too grandiose, though to do so is quite in keeping with man's ego and dreams. Man cannot control geographical conditions, he cannot control biological evolution, and he cannot at the present time control the superorganic. What can he do? We need not answer, as the ancients did, by comparing man to "the fly who, sitting on the axle of the chariot wheel, said, 'What a dust do I raise!'" Man's will and wish do play a part in the course of change, even though the rôle is, as far as we can see, a more modest one than is generally supposed.

Even if natural environment, culture, and heredity cannot be controlled as we would like, the conclusion need not be discouraging. Indeed, if we could control them, that fact might be discouraging, since our knowledge of the ends to which we might direct the changes is so meager and unsatisfactory. The really urgent need for control is at certain critical points in these three great areas where they impinge on each other. We cannot control the whole geographical environment, but we can control the floods of the Ohio River, a focal point where the superorganic and the inorganic worlds are not well adjusted. Fortunately, it is just these critical sectors that are often amenable to control. Many of them are within reasonable reach of man's abilities. The places

where control is most needed are generally those that are the most susceptible to practical social engineering. These are the areas where social problems are said to exist, and vigorous efforts to solve them will often meet with success. The practical need, then, is not so much for control over the basic processes of change as it is for control over the focal points of strain which these processes produce.

THE BASIC FACTORS AND SOCIAL ADJUSTMENT

This book, which is fast drawing to a close, has dealt with certain basic factors in the social life of man: culture, heredity, geographic environment, and the group. These phenomena have been analyzed and their functioning has been described. In this closing section we have discussed these factors from the point of view of change and in this closing chapter we have been concerned with whether the course of the changes in these factors is one of progress. It seems impossible to find agreement or a scientific answer as to what progress is for a very long period ahead or for a great variety of cultures, though there are a number of general statements of goals that are helpful as tools in trying to direct a particular change in a progressive way.

The four factors dealt with in this book can be used as the basis for a unifying conception. This systematization rests on the idea of change and the idea of adjustment. All these factors are in a process of change, though the changes in natural environment and in hereditary evolution are very slow. The superorganic and the types of groups which it fosters are in modern times changing very rapidly. Since these factors are all correlated, but are changing at unequal rates of speed, there naturally arises the question of whether these changes lead to good adjustments or to maladjustments. This concept of adjustment among changing factors was developed in the preceding chapter where it was observed that the different parts of the superorganic change at unequal rates of speed. It is possible to use this concept of harmonious adjustment among the changing factors of nature, man, culture, and group as a tool of guidance in control. In any given culture, collective action on a social problem can in many instances be taken, with a view to working out a more harmonious adjustment of the several factors involved.

Nearly everyone would like to lessen the amount of illness, which is an unsatisfactory adjustment between biological man and his environment. We work hard at programs of public health and at the development of scientific medicine. Mental disorders are largely a maladjustment be-

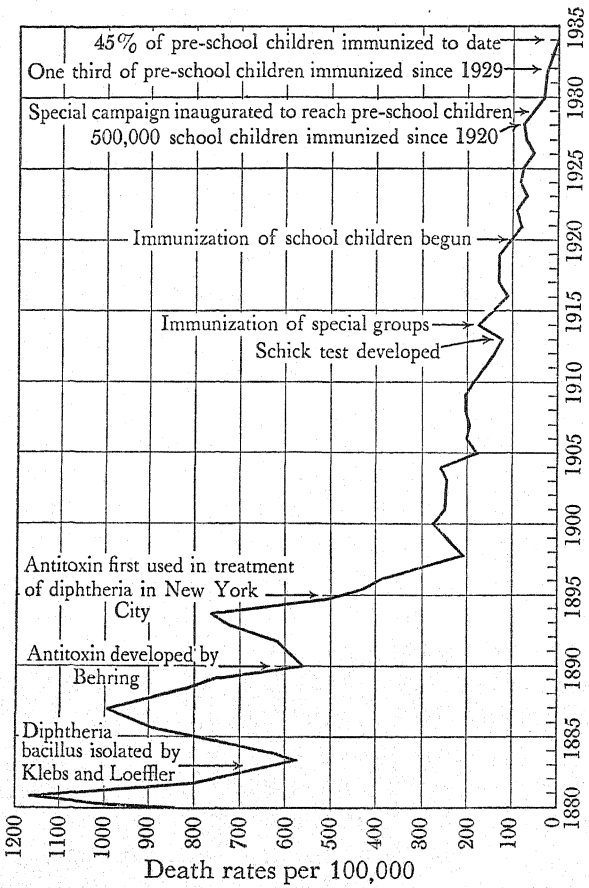


FIGURE 151. THE DECREASE IN THE CRUDE ANNUAL DEATH RATES FROM DIPHTHERIA PER 100,000 CHILDREN UNDER 10 YEARS OF AGE, 1880–1934

This chart shows the remarkable progress in the fight against diphtheria made possible by scientific discoveries and public health programs. The progress is in terms of a specific objective set up by the community, namely, the prevention of death from disease. From L. I. DUBLIN *and* A. J. LOTKA, TWENTY-FIVE YEARS OF HEALTH PROGRESS (*New York, 1937*). *By permission of the Metropolitan Life Insurance Company.*

tween our inherited nature and the superorganic, and few there are who would not want a better adjustment. Soil erosion is by common consent an unfortunate adjustment between nature and the superorganic.

Business depressions are maladjustments resulting from contemporary changes. They did not exist in earlier ages. Their counterpart then was famine, a bad adjustment between nature and man. Tragic mal-

adjustments are found in the distant past, as well as in the present, and are likely to occur in the future as far as we can see. For hundreds of thousands of years man was adjusted to an environment which called for muscular activity in the open air and the consumption of certain types of foods. Since this type of life existed for such a long time, it must be assumed that man achieved a fair measure of adjustment to it.[1] But now, suddenly, the superorganic has produced cities, a radically different type of environment. Is man well adjusted to sedentary life indoors and to long hours at monotonous repetitive tasks? Does the cave man live satisfactorily in the modern city? It is theoretically possible for the changed superorganic to have brought about an environment to which man is better adapted. He may, of course, be better adapted to the factory machine than to the saber-tooth tiger. But the question is a permanent one, for the problem of adjustment between man and his culture will always exist.[2]

Biological man is fortunately very adaptable, more so than most other animals. He lives in nearly every land of the earth. But this adaptability is not infinite. If pushed too far strains appear. So also culture is highly modifiable. Satisfactory adjustments would seem possible.

Attempts to control change and to secure better adaptations can be made through reform movements which initiate changes of a slow, evolutionary nature. But sometimes the changes come precipitately in revolutions. These two methods of change occupy our attention in the next section.

REFORM AND REVOLUTION

In a stationary society, when adjustments are once made they are likely to be rather abiding. In a changing society such as ours, however, such is not the case. New conditions bring new problems and further need for readjustment. Even on the old problems, new viewpoints are likely to develop. New insights are constantly being acquired as the result of new discoveries and inventions, and these tend in some measure to effect a new consensus. A demand thus arises for a change or reform in the old procedure. In the case of persons suffering from mental disorders, there have been many reforms in treatment in recent years. At one time certain mentally disordered individuals were thought bewitched and

[1] G. T. W. PATRICK, THE PSYCHOLOGY OF RELAXATION.

[2] JOHN DEWEY, "THE INTERPRETATION OF THE SAVAGE MIND," THE PSYCHOLOGICAL REVIEW, 9:217–30, May, 1902.

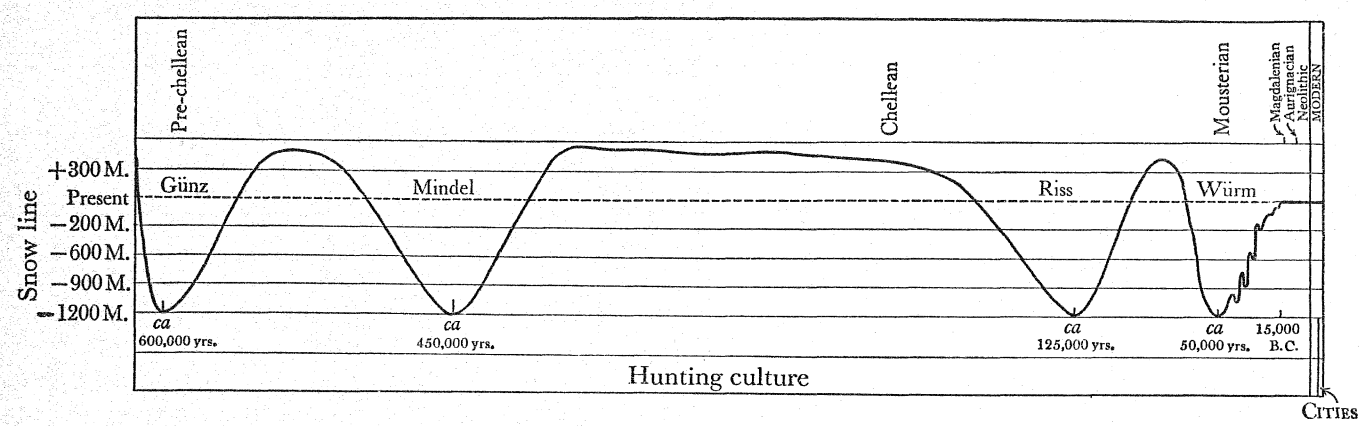


FIGURE 152. TIME CHART OF THE DEVELOPMENT OF CULTURE

The approximate variations in the snow line which occurred during the ice ages of the past are shown in comparison with the situation at present. The type of culture which prevailed at each period also is shown. It is seen that for hundreds of thousands of years man lived in a hunting culture, but his experience with modern city life has been relatively brief. The chart also indicates that cultural changes were very slow at first and have gradually occurred faster and faster. Adapted from W. L. H. DUCKWORTH, PREHISTORIC MAN *(New York: G. P. Putnam's Sons, 1912), p. 118, fig. 25.*

were executed. Even quite recently the insane were simply segregated, and often abused. The idea of caring for them sympathetically and scientifically is of very recent date, and represents the outcome of a vigorous reform movement. In a changing society there are usually numerous reform movements; that is, organized attempts to change the type of control employed in critical situations.

Reform movements go through a series of steps or periods somewhat as follows.[1] First the need for the change is recognized, usually by a few individuals. They agitate for reform. If their propaganda is successful, it results in a growing public awareness of the need for the change. At this point the program may be more definitely formulated and an organization set up. Then follows the second period, one of campaigning, with special effort being made to bring pressure to bear upon those individuals and agencies that play strategic rôles in the situation. If the reform movement is successful, its program is established and, in the third period, becomes part of the accepted institutional set-up. In due course, new dissatisfaction may arise, and the cycle may be repeated. Since reform movements are in the nature of social inventions, they are subject to the same tests as inventions in general. That is, their success depends on whether or not they fit into the folkways, suit the public mood, and are workable. Equally important, reforms must reckon with the opposition of the vested interests, the groups that stand to lose something if the change is effected.

Revolution is a rapid change of some magnitude in culture. In the very nature of things it does not occur in a stationary society, but only in one that is changing. As was pointed out in an earlier chapter,[2] however, revolution is a function of invention which is more likely to occur in a single series than in the whole of the superorganic. The automobile constitutes a sort of revolution in the series known as transportation. An invention of even greater magnitude was the steam engine, which ushered in the industrial revolution.

The type of change most frequently called revolution occurs in the cultural series known as government. That is, the term revolution as generally used refers to a rapid, widespread change in the political organization of a society. Apart from the sudden and extensive political changes, a governmental upheaval may have little social significance, as in certain

[1] JEROME DAVIS, CONTEMPORARY SOCIAL MOVEMENTS (New York: D. Appleton-Century Company, 1930), p. 8 ff.

[2] Chapter XXIV.

Latin-American countries where frequent governmental changes have occurred by violent means but without much effect upon other aspects of community organization. Where the social effects of political revolution are more impressive, the revolution usually represents an attempt to adjust a long-standing lag in the political sector. Such a revolution is to be explained in terms of unequal rates of change in correlated parts of culture. A change first occurs in the material realm. Owing to changes in the economic organization, let us say, wealth concentrates increasingly in the hands of the few, while the condition of the poor grows more and more wretched. There is great unrest among them, accentuated by the communication inventions. Thanks to the latter, it is possible for the oppressed masses in one country to learn about the more favorable conditions of other peoples, and so to become emboldened in their own ambitions. The situation thus calls for some change in the system of control, in order to ease the strain. Owing to the blind resistance of the ruling classes, however, no such changes may be permitted. A situation of this sort may go on for a long time, so that the strain becomes very great.

Widespread misery and oppression, however, do not by themselves cause revolutions. It is necessary also that acute resentment against these conditions be felt by the masses, and moreover that they entertain some hope for substantial betterment.[1] In China there has long been general economic misery, but little revolutionary activity, and the same is true in India, where the Hindu religion operating through the caste system rationalizes the lot of the destitute and thus allays discontent. Hence, before revolution can occur, the misery of the people must be exploited by a small group which stands to gain by the change and is willing to furnish the necessary leadership and to use extreme methods to achieve its ends.

It is reported that in all human history no real revolution has developed in less than three generations.[2] That is to say, an enormous lag accumulates, and the political revolution is merely an attempt to effect a long-delayed and substantial adjustment. The degree of violence is in proportion to the amount of maladjustment. It was greater in France than in England, and greater in Russia than in France.[3]

[1] GEORGE SOULE, THE COMING AMERICAN REVOLUTION (New York: The Macmillan Company, 1934).

[2] L. P. EDWARDS, THE NATURAL HISTORY OF REVOLUTION, p. 16.

[3] See H. M. HYNDMAN, THE EVOLUTION OF REVOLUTION (New York: Boni and Liveright, 1921).

SOCIAL PLANNING

A movement which has recently come into great prominence is that known as social planning. It differs from reform in a number of respects. While reform is remedial and corrective, planning is preventive and constructive. A plan is laid out as an achievement to be made in a certain length of time. The emphasis is on the practical rather than on aspirations of the fantasy type. The various state planning boards have been quite successful in looking into the more immediate future and in planning for such practical considerations as educational facilities, electric power, and flood control.[1] Emphasis has been on the practical side in successful planning. A plan is usually not concerned with eternity or infinity. Furthermore, it does not essay to deal with the whole superorganic, but only with a manageable portion of it.

Planning has the virtue of looking ahead, which is essential in a changing society. Unless there is what Comte called "prevision," it is idle even to talk of control. Earlier sociologists, like Spencer, believed control was neither possible nor desirable.[2] Spencer taught that the social heritage grows according to fixed, ineluctable laws and that interference usually makes things worse. Comte, on the contrary, believed that man had the power to look ahead and to control his destiny.[3] Later this idea was brilliantly developed by Ward,[4] who used the phrase, "social telesis," meaning societal self-direction. While Ward was unduly impressed with man's intellectual powers and exaggerated greatly the amount of control possible, he nevertheless did perform a valuable service in stressing the possibility and importance of looking and planning ahead.

Of course, it would be good to know all the very long-time trends, but in our ignorance it is possible to act with a vision that extends only for a few hundred years or even for just the lifetime of our grandchildren. The further a trend line is extended forward into the unknown, the more inaccurate the forecast. In fact, a great extension is usually worthless. It may be wise to establish parks and playgrounds in a certain section of

[1] See National Resources Board, STATE PLANNING, REVIEW OF ACTIVITIES AND PROGRESS (Washington: Government Printing Office, 1935).

[2] HERBERT SPENCER, FIRST PRINCIPLES (New York: D. Appleton and Company, 1878); and especially MAN VERSUS THE STATE (D. Appleton and Company, 1888).

[3] AUGUST COMTE, POSITIVE PHILOSOPHY (London: Trübner and Company, 1875–90), Martineau translation, vol. II, p. 73.

[4] LESTER F. WARD, APPLIED SOCIOLOGY (Boston: Ginn and Company, 1906); also DYNAMIC SOCIOLOGY (New York: D. Appleton and Company, 1898).

the city even if we do not know whether the city will be in existence ten thousand years hence or what the distribution of the population will then be. The Rockefeller Foundation refuses to dictate the disposal of their gifts forever, claiming they do not know that what is good now will be desirable fifty years from now. The story is told of a man from New York who went west in the middle of the last century to stake out a claim. He was befriended in a western city, where he found himself badly in need of sustenance. Later, when success came to him he established a foundation of money the interest of which was to be used to befriend homesteaders who became stranded in the western city. But now there are no applicants. Man's vision is too limited to plan for eternity.

More often than not, however, it is possible to act successfully in accordance with short-time advances. Most social or national policies are framed on this basis. The practicality of long or short policies varies with the problem in hand. In the case of racial stock and eugenics it is desirable to take a longer point of view. The same is true in regard to the natural resources of the earth's surface. But the majority of acts of a city council, for instance, deal with matters where long perspective is not necessary. When we start out on a trip we want to know that we are not wandering aimlessly, but going to destination *A*. We may even know that following this trip we plan to go to destination *B*. But it is not necessary to know all the succeeding trips for the rest of our lives.

Experience with planning in recent years enables us to see some of the difficulties.[1] The Five-Year Plan in Russia was in large part an achievement in the industrialization of the country. Suggestive, too, is the fact that the name of the National Planning Board in the United States was changed to the National Resources Planning Board. Planning boards probably deal more successfully with material situations of not too comprehensive scope, where measurement is possible. As Keller[2] expresses it, "In this field the means are as readily susceptible of test as the ends are definite and concrete, and so there is some hope of attaining solid and lasting results." To plan in regard to some social organization like communism or fascism is difficult because they involve highly emotional material about which opinion is divided. Controversial social questions are not planned for very successfully.

[1] FINDLAY MACKENZIE, editor, PLANNED SOCIETY, YESTERDAY, TODAY, TOMORROW (New York: Prentice-Hall, 1937), Part III, "CONTROL AND PLANNING IN PARTICULAR AREAS OF ECONOMIC ACTIVITY." For a comprehensive bibliography of the subject, see pp. 939–78.

[2] A. G. KELLER, SOCIETAL EVOLUTION (New York: The Macmillan Company, 1915), p. 167.

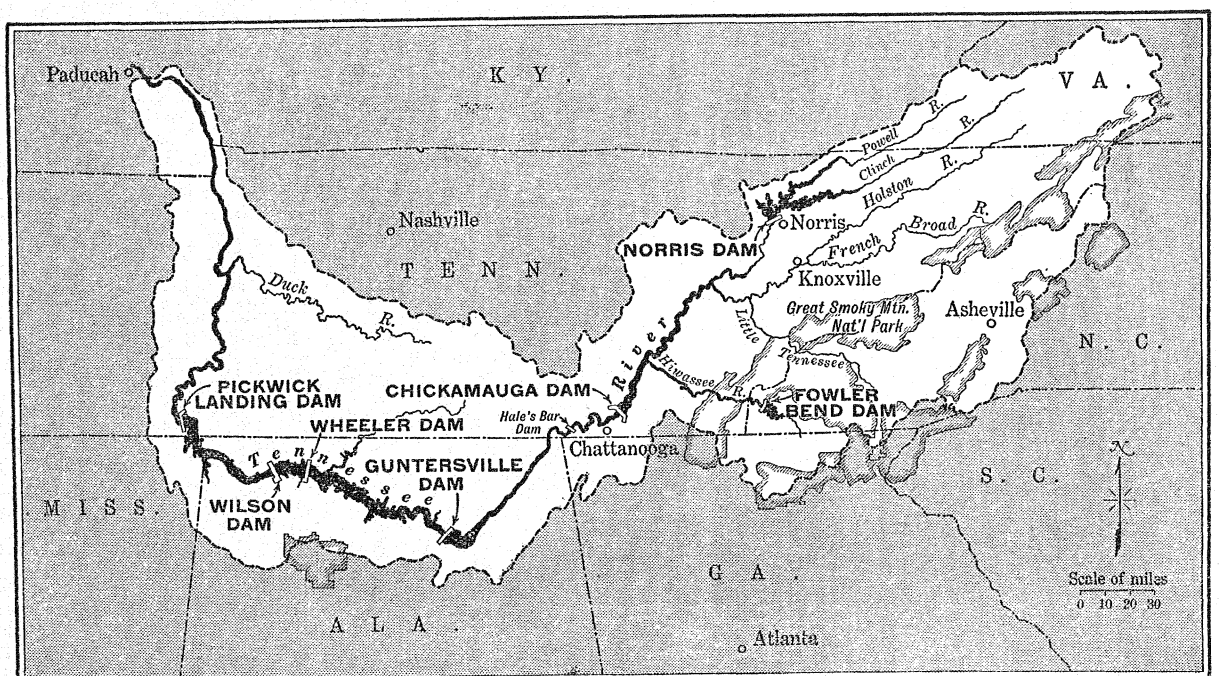


FIGURE 153. THE TENNESSEE VALLEY

One of the largest plans of a regional nature that has yet been undertaken is that of the T.V.A. It not only conserves water supply and affords electric power for seven states, but also presents one of the most extensive plans that we have for agriculture and the building up of a great recreation area. The conservation of natural resources is one of the first and most necessary of plans. It is remembered, of course, that there are always many plans, not just one. From GUITTEAU–BOHLMAN, OUR GOVERNMENT TODAY, *p. 523.*

Furthermore, to carry out a plan successfully often requires a high degree of organization, as in the case of the army. A high degree of organization means discipline and loss of liberty. Hence planning is opposed by those who lean toward laissez-faire as a social policy. "Democratic parliamentary government cannot plan, it can merely improvise," [1] unless it is willing to delegate considerable authority to the executive. Concentration of authority is needed for the successful formulation and prosecution of a plan. Otherwise the program is likely to be subject to fluctuations and modifications, as the result, for instance, of the pressure of interests that are powerful and that stand to lose by the new program. A great change in a heterogeneous society such as ours is certain to be inimical to the interests of some established groups, no matter how beneficial it may be for the people as a whole.

Despite this and other opposition, however, the planning movement has been gaining ground.[2] Planning is likely to develop in many different sectors of the advancing superorganic, which after all is very complex. Practical plans are likely to be many and heterogeneous, dealing with manageable problems for a near future. While concern with ultimate goals for the whole of civilization continues, the practical work will go forward in many areas from day to day, with efforts to plan a little ahead for the particular problem. There will be plans that are not in line, and movements will develop for co-ordination, which will be greatly needed. There then will be a swing of emphasis to progress on the grand scale, to be followed in turn by a demand for a more specific practical plan. The whole process will thus go forward, and, if success follows, perhaps practical plans in the years to come will be more comprehensive and better integrated than it is possible for them to be at the present time.

[1] SIR ARTHUR SALTER, THE FRAMEWORK OF AN ORDERED SOCIETY (New York: The Macmillan Company, 1933).

[2] A measure of the increasing interest in social planning is the growing volume of literature on the subject. For the period 1923–33, a total of 1598 titles have been noted. The number of titles increased per year, with 16 titles in 1923–24 and 401 in 1932. EVELYN C. BROOKS and LEE M. BROOKS, "A DECADE OF 'PLANNING' LITERATURE," SOCIAL FORCES, 12:427–59, March, 1934.

QUESTIONS FOR DISCUSSION

1. Does the fact that man has evolved from lower orders mean he has progressed? Are evolution and progress synonymous?
2. How does the concept of progress rest upon values? Are there any constant or universal values?
3. Does the history of the United States show progress in technology? In art? In business organization? In morality?
4. Why do we venerate our leaders so highly?
5. Is Hitler alone responsible for modern Germany? How does it happen that dictatorships have been set up in a number of different countries within a short space of time?
6. What are some innovations that the President of the United States could not possibly succeed in introducing at the present time even if he wished to do so?
7. What possibilities for control over biological man does the eugenics program offer today?
8. What is the significance of the fact that the totalitarian states are more favorably disposed toward eugenics than the democracies?
9. Is it possible for man to control the course of civilization? What would be involved in such control?
10. Why is it difficult to anticipate the social effects of an invention like television?
11. What inventions of recent times may be regarded as revolutionary in their effects?
12. What planning projects have been projected in your community? What are their prospects for success? Do they concern fundamental social problems?
13. "The practical need, then, is not so much for control over the basic processes of change as it is for control over the focal points of strain which these processes produce." Illustrate.

TOPICS FOR REPORTS

1. Varying conceptions of progress existing in different eras.
2. The idea of progress in modern Germany.

3. Social planning in Mexico.
4. Social planning and the T.V.A.
5. The relation of leadership and the social situation.
6. The social philosophy of the inventors of the mechanical cotton picker.
7. The process of reform as illustrated by the history of the treatment of the mentally disordered.
8. The revolutionary cycle exemplified by the Russian revolution.
9. The development of the concept of social planning.
10. A report on J. A. LEIGHTON, SOCIAL PHILOSOPHIES IN CONFLICT. New York: D. Appleton-Century Company, 1937.

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BURY, J. B., THE IDEA OF PROGRESS. London: The Macmillan Company, 1921.

Traces the history of the idea from earliest times. The author is quite optimistic.

CARVER, THOMAS NIXON, SOCIOLOGY AND SOCIAL PROGRESS. Boston: Ginn and Company, 1906.

An old book which throws much light on the contribution of biology to ethics.

CASE, CLARENCE M., SOCIAL PROCESS AND HUMAN PROGRESS. New York: Harcourt, Brace and Company, 1931.

An able series of essays on the concept and implications of social progress.

EDWARDS, L. P., THE NATURAL HISTORY OF REVOLUTION. Chicago: University of Chicago Press, 1927.

The typical stages and sequences in the development of revolutionary movements, illustrated by a number of major revolutions. The point of view of natural science applied to historical data.

FOSDICK, RAYMOND D., THE OLD SAVAGE IN THE NEW CIVILIZATION. New York: Doubleday, Doran and Company, 1928.

This book is a series of addresses, the theme of which is adequately described in the title. It is very readable and suggestive.

HART, HORNELL, THE TECHNIQUE OF SOCIAL PROGRESS.

Contains some interesting scientific comments about progress.

HOBHOUSE, L. T., SOCIAL EVOLUTION AND POLITICAL THEORY. New York: Columbia University Press, 1911.

Hobhouse also develops the idea of harmonious relationship of the general parts of society as the goal of progress.

KIDD, BENJAMIN, SOCIAL EVOLUTION. New York: The Macmillan Company, 1894.

This book on the biological point of view is an old one, but sometimes we get the fullest ethical discussions from the older books on the subject.

LINTON, RALPH, Editor, THE SCIENCE OF MAN IN THE WORLD CRISIS. New York: Columbia University Press, 1945.

A collaboration of twenty-two anthropologists.

MUMFORD, LEWIS, TECHNICS AND CIVILIZATION, 1934. THE CULTURE OF CITIES, 1938. THE CONDITION OF MAN, 1944. New York: Harcourt, Brace and Company.

A great trilogy on the problems involved in the adjustment of man and culture.

PATRICK, GEORGE T. W., THE PSYCHOLOGY OF RELAXATION. Boston: Houghton Mifflin Company, 1916.

The author develops the thesis that man's recreation is an attempt to recall the major occupations of life in the Stone Age. The author is not altogether clear about the concept of culture and its influence, but the discerning reader can profit much from reading the book.

SOROKIN, PITIRIM A., THE SOCIOLOGY OF REVOLUTION. Philadelphia: J. B. Lippincott Company, 1925.

A comprehensive statement of the social causes and effects of revolution, written with some bias because of the author's difficulties with the Bolsheviks.

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